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An Introduction to Economics

For Students in India and Pakistan

VERA ANSTEY
London School of Economics

With a Contribution by
ANNE MARTIN
University of Oxford

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This is an introductory course for first and second year students which sets out the basis of accepted modern economic theory. But it differs from existing introductions in one major respect. The subject is dealt with from the point of view of the student in an 'undeveloped' country and the examples are taken mainly from India and Pakistan. The generations of students from different parts of the Commonwealth, now many of them no doubt themselves teachers, who have had help and advice from Dr. Anstey will know that she is uniquely qualified for this task and will remember her book on *The Economic Development of India.* Miss Martin specializes in agricultural economics and is author of *Economics and Agriculture.*

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/c

AN INTRODUCTION TO ECONOMICS

For Students in India and Pakistan

BY

VERA ANSTEY

D.Sc. (Econ.)

London School of Economics and Political Science

WITH CONTRIBUTIONS BY ANNE MARTIN

M.A., *University of Oxford*

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PREFACE

In the first place I must thank Anne Martin for her contribution of one-and-a-half chapters, for designing most of the diagrams, and—above all—for having read and made valuable comments upon all the chapters. Without her encouragement the book would not have been written.

The excuse for yet another volume on elementary economics is that most such works approach the subject from the point of view of materially advanced countries, emphasize problems and policies which are of topical importance for such countries, and usually take their examples from them. In the following pages the attempt is made to introduce the subject from the point of view and special interests of undeveloped countries of a particular type.

The authors accept the general validity of economic theory as developed in the West, but realize the necessity of insisting that in applying theory to actual situations it is essential to take into account the conditions (social as well as economic) prevailing in different types of economies. Many works on elementary economics assume the prevalence of social and economic conditions which in fact are not prevalent in undeveloped countries. This may lead to a feeling on the part of students in undeveloped countries, that some of the exposition—especially sections dealing with economic applications and policies—are unrealistic, that this type of theory provides no help to the understanding of the working or problems of their own economies, and hence that what is needed is an altogether new type of theory. The object of the present volume is, therefore, to attempt to remove some of the misapprehensions and suspicions that may be aroused by works written primarily for students in advanced countries, when read by students in undeveloped countries, by attempting throughout to emphasize the relationship between theory and its application, and in what ways allowance has to be, and can be, made for varying social, economic and institutional backgrounds.

If all undeveloped countries had similar 'backgrounds', differentiating them from advanced countries, it would have been possible to write an 'introduction to economics' addressed to students from undeveloped countries in general. But this is not the case. Undeveloped countries are of vastly different types. Their geographical, demographic, social, economic and institutional characteristics differ as much from one 'type' to another, as they do between 'advanced' countries and any particular undeveloped country.[1] For instance, the present economics organization and problems of undeveloped and developing Africa differ fundamentally from those of India and Pakistan. Their populations are sparse, although growing. Western tropical Africa mostly has well-developed or promising lines of export, whilst internal trade is definitely market-oriented, and to a substantial extent operated independently by the women. Large areas of Eastern tropical Africa have, in the past, been dominated by European settlement, and the problems derived therefrom. Again, the problems of Latin American countries are different in kind from those of Africa, India and Pakistan. An attempt to indicate the economic environment, and to discuss the outstanding problems of economic modernization and development of these very diverse regions, would entail in each case an entirely different approach.

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[1] It is, of course, also true that there are great differences between particular 'advanced' countries in the respects mentioned above; for instance, USA as con-

For this reason it is impossible, at least in a short volume, to attempt to introduce students from varied types of undeveloped countries to the fundamental concepts of economics and their applicability. The authors have, therefore, chosen specifically to address students in India and Pakistan. India and Pakistan (and in many respects also Ceylon) may be considered as leading examples of 'developing' (as contrasted with 'undeveloped') countries. Despite well-known and well-marked differences it may be claimed that these countries have sufficient in common, from the economic point of view, to justify this choice.

Grateful thanks are also due to Messrs F. C. A. Jones and K. R. Clark of the Oxford Institute of Agricultural Research for the preparation of the diagrams, as also to our patient typists.

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trasted with Japan, or UK with Denmark. It happens, however, for reasons too numerous to be discussed here, that the differences between particular 'advanced' countries are less important from the point of view of economic theory, that is the difference between 'advanced' and 'underdeveloped' economies in general.

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Part I
PRELIMINARY CONSIDERATIONS

CHAPTER I
INTRODUCTION

A. Economics and Students from Developing Countries

B. The Special Economic Features and Problems of India and Pakistan

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A. ECONOMICS AND STUDENTS FROM DEVELOPING COUNTRIES

Countries often termed 'underdeveloped' (meaning poor, but with potentialities)—but more simply 'undeveloped'—include greatly varying types of economies with widely different economic characteristics. This volume is, therefore, primarily addressed to students from a particular class of undeveloped economies, typified by India and Pakistan, which can more accurately be described as 'developing'. For, however greatly India and Pakistan may differ in some respects, they do share—to a greater or lesser extent—certain social and economic features which profoundly influence their growth, and also provide useful examples for the purpose of exposition. These special features are indicated and discussed below. Ceylon, and some other South-Asian countries, are also faced by very similar problems.

The reason for this approach is that students from countries of this type are faced by certain special difficulties when they first begin to study economics, which render the subject unnecessarily perplexing.

First and foremost it is hard for them to understand how a form of economic analysis designed in, and for, 'advanced'—i.e. wealthy and progressive—economies can throw light on the most urgent problems of nations which are manfully striving to emerge from the so-called vicious circle of poverty and inefficiency. This attitude is strengthened when it is found that economic analysis is based upon an elaborate explanation of how, under competitive conditions, the price mechanism—working through its effects on supply and demand—determines ultimately what and how much is produced; the allocation of resources; the distribution of incomes amongst producers and owners of the factors of production; how much shall be saved, how much invested; and which goods (in what quantities) shall be imported and exported. 'In our country,' they may say, 'the assumptions underlying such an analysis are completely unrealistic: how then, can it help us to understand our economy and to solve our problems?' The fact is that some of the simplifying assumptions underlying elementary economic analysis—such as that prices in general and the relevant level of prices of different goods are determined by fairly free competitive forces, and that there is little government interference with economic affairs—are nowadays unrealistic for advanced and developing countries alike. Especially since the outbreak of the Second World War, during the immediate post-war period, and—for India, Pakistan, Ceylon and various other South-West Asian countries—since economic planning has been adopted, governmental interference (despite fluctuations in policy) has tended to increase, and hence to undermine competitive price fixation, and all that follows therefrom. In the Indian sub-continent—as in the United Kingdom—government procurement, rationing and price-fixing were even expanded for some years after the end of the war, whilst under planning governmental policies have clearly had great influence on, for instance, the allocation of resources and on what goods are imported and in what quantities. What may not be fully realized is that the economist's simplifications merely form a basis from which steps can be taken—by the gradual removal of unrealistic assumptions—to a situation in which analysis can be conducted in a manner applicable to the actual state of affairs in any particular economy. Indeed, at first sight—but only at first sight, as will be explained in the following pages—it appears only reasonable to expect that some more suitable form of analysis could, and should, be adopted. Is not a different approach necessary to explain, for instance, why the bulk of the population of countries which have shared some century and a half of intimate contact with advanced nations, continues to practice primitive methods of production in large sectors of their economies, in which the people remain on the margin of subsistence; and also to suggest how such nations might secure a fair share of the progress, prosperity and welfare prevailing elsewhere?

There are other special difficulties also. 'Economics' presents certain linguistic or verbal difficulties. We do not refer here merely to the fact that most students in undeveloped countries study economies in a foreign language. This serious obstacle might be overcome, in the longer run, by greater reliance upon (and provision of) vernacular works, or translations. The special difficulty arises because of the combination of studying in a foreign language with verbal difficulties inherent in economics itself. Vernacular works and translations share these 'verbal difficulties inherent in economics itself', whilst translations present a number of additional problems that need not detain us here. The fact is that economists use a number of words that occur in everyday life, and which have broad and vague meanings, to express specific technical concepts. This is, for instance, true of the terms 'market' (see Chapter II), 'demand' and 'supply' (see Chapters III and IV), although these concepts are basic to economic analysis. In addition there is the complication that common usage in undeveloped countries may have overtones not present in advanced economies, for which allowances are, therefore, not made by Western economists.

But this is not all. There is not even general agreement amongst economists about the definition of a number of technical concepts. Many well-known economists have used certain terms to explain their concepts in a particular limited sense, as defined by themselves. Moreover, partly to avoid misconceptions, partly for the sake of conciseness, and (possibly!) partly for prestige, a number of new terms (for old as well as new concepts) have been adopted in economic writings during recent decades. Some have proved appropriate and valuable. But other terms and phrases (sometimes called 'economists' jargon') may have tended to confuse, rather than to illumine, and to establish an 'economic mystique' which may keep within a narrow circle some fundamental (and often simple) principles or truths, which deserve to be more widely understood and absorbed.

A somewhat similar problem arises at a more advanced stage when mathematical models are introduced. For the student who tackles advanced works of this nature before he has fully mastered the elements of the subject, this presents the danger of serious misunderstanding, even if he has sufficient mathematical equipment to grasp the mathematical constructions and arguments themselves. Such models can only be built on the basis of elaborate and meticulously defined assumptions, in order to achieve that degree of simplification essential for their construction. This means that they may be unrealistic even for advanced economies. Mathematical models may also be utilized to explain the working of an actual economy, and hence be based on quantitative data available for the economy under consideration. Here the danger arises that attempts to apply such models to undeveloped countries, with the use of incomplete and inaccurate data, may prove seriously misleading. So far as mathematical model-making is concerned, two conclusions can therefore be drawn. First, that their use can only be recommended to those who already have a sound grasp of the most important works of 'verbal' economists (including, of course, those utilizing simple mathematical illustrations): second, that students with a marked bias towards theorizing, irrespective of the applicability of their theories to actual situations, should take care to develop (or maintain) their mathematical techniques long before they can even think of applying such techniques for economic purposes. Mathematical models are not a short-cut to economic understanding or to the choice of realistic policies. Yet they often exercise an eerie fascination upon the unwary student who is seeking a magic formula.

Thirdly, students from undeveloped areas have a legitimate 'grouse' because in the past, as is universally acknowledged (and has already been mentioned above), Western economists have tended to pay primary attention to such aspects of economic life as have had, at the moment, topical interest. This has affected not only discussion of policies (i.e. of the application of theory to practical affairs), but has also been decisive in giving priority to particular problems as subjects of theoretical research. As these topical questions have generally not been, and still often are not, those of primary concern to undeveloped regions, whilst the latter problems have, in the past, received scant attention, this has given an air of irrelevance to much Western economics. Naturally, the student from a materially backward region has tended to feel impatient, and to long to get down to problems of basic importance from the point of view of his own interests. An outstanding example is Keynes's 'General Theory of Employment' and its applications. The student may well have hoped that here he would find a full analysis of the causes of unemployment and underemployment, under varying conditions, together with some guidance as to how to achieve fuller employment in his own and similar countries. He finds, however, that Keynes was analysing and dealing with only a particular type of unemployment: i.e. that arising from cyclical depressions in advanced countries. To some extent current economic literature offers more help, owing to the upswing of interest in undeveloped areas, and the consequential vast output of studies of economic growth in the latter regions. But even here there is danger, for such works normally assume a sound knowledge of at least elementary economics, which is not always justified.

Fourthly, a difficulty arises because of the predominant methods of teaching in newly emerging countries, as contrasted with the West. The student in such countries is accustomed to treat his teacher as a guru: to learn by rote, and to absorb what he is taught without question. Pleasant and easy as this may be for both parties, it does not take one far in the study of economics. Students cannot become economists simply by learning what others have said, especially as much of more advanced theory remains controversial, so that different economists say different things! It has been said that 'nobody has ever put all the economists in the world end to end in order to see whether they would reach a conclusion', but the International Economic Association put thirty economists on an island for a week, in 1955, to discuss capital theory. 'They did not reach a conclusion.'[1] It is thorough understanding and a critical mind that are necessary, and it is astonishing what elementary mistakes can be made by those who have 'learnt' but not fully understood economic theory. This arises particularly in connection with analyses of practical problems, where the economic aspects of life are apt to be inextricably combined with other (e.g. social, psychological, religious) aspects. Because the assumptions underlying Western analyses of policies are unrealistic for undeveloped countries, students may fail to perceive that any principles, or methods of reasoning, exist that—with suitable modifications and adaptations—can be utilized in seeking solutions for their own policy problems.

The agreed core of generally accepted economic principles, which can actually be applied in practice, may, perhaps, be considered disappointingly small. It is, however, the approach or methods of economists which are most valuable. These, therefore, are what the student must learn to understand, and always with a critical, sceptical eye. Economics is a relatively new discipline, still in the making. Beyond the agreed core, there are many 'schools' of thought, and—as already said—much controversy. The serious student will aim at eventually making some contribution to such controversy, and from the first should question and—when necessary—criticize and argue.

All this does not mean that the study of economics leads nowhere unless, or until, one becomes an 'authority'—or 'expert'. On the contrary, there is a body of doctrine, an agreed form of analysis, which can throw valuable and reliable light on the working of various types of economic mechanisms, under differing circumstances. It can also explain the main factors affecting the results, limits and efficiency of particular policies. But these desirable results follow only if it is realized that there is no such thing as a purely economic man; that every society consists of human beings, and of groups or classes of persons; that the motives, activities, and reactions of all members of a community derive from many other sources besides the purely economic ones; and that allowance must be made for these facts.

The student must, therefore, approach his subject with a determination to discover, at every step, exactly what is the basis of a particular analysis, and what are the assumptions upon which it rests. He must also realize that elementary analysis (with which alone this

[1] *The Economist*, August 12, 1961, p. 632; Review of *The Theory of Capital*, Ed. F. A. Lutz and D. C. Hague.

volume is concerned) is indeed 'elementary', and that, as he proceeds thereafter, more and more facets of the problems discussed will have to be analysed before it is possible to deal fully with the manifold factors affecting (directly or indirectly) every aspect of what started as a very simple problem or inquiry.

It must not, however, be forgotten that despite the existence of the special difficulties, enumerated above, which face students from undeveloped countries, in technical matters the latter countries have, today, some advantages in comparison with nations now materially advanced, which were pioneers in securing self-sustained growth. Modern means of transport and communications of all types have become so good and rapid, that undeveloped countries can now fairly easily adopt or adapt for their own purposes the scientific and technical inventions, knowledge and expertize of advanced countries. This includes the power to avoid some of the errors (especially in social matters) committed by the pioneers.

The object of this volume is, therefore, to explain the fundamental nature and methods of economics, and the elementary principles underlying both theoretical analysis and an understanding of the actual working of the economic mechanisms and institutions of particular countries. Illustrations and analyses of realistic problems will refer throughout to conditions typical of, and of special interest to, undeveloped nations (with special reference to India and Pakistan, and other similarly placed countries). Within the space at our disposal no attempt can be made at any comprehensive survey of the manifold and complex economic problems facing such countries. All that can be attempted is to select some appropriate examples and to show how even elementary theory can throw some light upon them and provide at least tentative guidance towards their solution.

The rest of this chapter is devoted to a short summary of the main economic characteristics of India and Pakistan, as representing over-populated countries, depending largely on agriculture, which distinguish these regions from advanced countries. Chapter II explains the economist's approach to his subject. Part II gets down to actual 'analysis', in this case of the behaviour of individual consumers and producers (Micro-economics). Finally, Part III undertakes some analysis of the economy as a whole (Macro-economics).

B. THE SPECIAL ECONOMIC FEATURES AND PROBLEMS OF INDIA AND PAKISTAN

It may facilitate an understanding of the nature of the special economic problems facing undeveloped countries similar in type to India and Pakistan, and of the care needed in applying economic theory thereto in an appropriate manner, if we list and comment upon the economic significance of some of the characteristic economic (and social) features of such countries. These features are in some cases different in kind, in others different in degree, from those prevailing in advanced countries. Here attention will be concentrated upon clarifying the economic significance of the features mentioned, leaving to later chapters discussions of how to adapt theoretical analyses in an appropriate manner, some examination of relevant policy considerations, and actual analyses of certain realistic problems.

Firstly, the countries under consideration—with their large predominance of agricultural populations—are fundamentally dependent for prosperity (even in the sense of the mere maintenance of the present miserably low standard of life of a large part of the rural populations) upon physical forces beyond human control. The highly variable monsoon is, of course, the outstanding example, although India and Pakistan also suffer from floods and other natural disasters. It should not, however, be overlooked that although the course and strength of the monsoon is beyond human control, much has already been done (and more is being, and remains to be done) to mitigate the economic and social results of such catastrophes—by, for instance, the construction of more irrigation works, drainage and flood control, and transport improvements. In the meantime fluctuations in crops due to these disasters are greater and affect more people here than in advanced countries. Most other undeveloped countries too, are less affected. This is not to assert that devastating natural disasters never occur in advanced countries. But such countries have greater means of coping with the misery caused thereby, and of rehabilitating their affected populations. Moreover, it appears that the recurrence of such disasters is more frequent in India and Pakistan and their scale (as measured by persons affected) greater. Whereas, for instance, in countries such as USA and Japan (and also in the West Indies, which is classed as 'undeveloped') the victims of natural disasters are counted in their hundreds (or perhaps in thousands), in India and Pakistan they may be counted in their millions. China appears to suffer to a comparable extent, but possibly no other country—advanced or undeveloped.

An extreme comparison may be quoted that brings out forcibly the nature of the Indian problem. An inquiry in the 1920s (carried out by Dr H. H. Mann) revealed that in the UK a 'crop-failure' meant a crop of less than 80 per cent of normal, whereas in the Bombay Deccan (and similar conditions prevail in many other parts of India) it meant one of less than some 10 per cent. A 'bad' monsoon occurs, on an average, over large areas every four to six years in India. This may affect millions of rural dwellers, and despite governmental aid (for instance by rushing food and water to the affected regions, and providing seed and cattle for the subsequent season) this spells loss of holdings, crippling indebtedness and so on, for many in the stricken areas. No wonder that permanent indebtedness is a common matter, and that a large proportion (estimated as much as 50 per cent) of the cultivators are deemed not to be 'credit-worthy'. This is one of the greatest impediments to the success of the co-operative movement (upon which so much stress is laid in the Indian and Pakistani Five-Year Plans) and largely accounts for the great difficulty in improving the standard of life of the many millions who are still dependent upon the monsoon. This feature also accounts largely for the great contrasts in the prosperity of different regions of the country.

In Pakistan, the striking differences—economic, social and in population density—between West and East (separated by over 1,000 miles of Indian territory) pose a particularly difficult regional problem. East Pakistan is, in most respects, more like West Bengal (except that the latter includes Calcutta) than West Pakistan. The greater facilities for development in West than in East Pakistan led, in the years following Independence, to an increasing gap between the prosperity of the two branches. This problem has only recently begun to be tackled seriously.

A contrasted problem can also be traced to the exceptionally great variations in crop-yields from season to season. When harvests are unusually good over large areas, prices may fall disastrously. A farmer's total income from sales off his holding may be actually less in a 'good' than in a 'moderate' (or even in a 'bad') season. This provides a very poor incentive for the much-desired increase in total agricultural output.

Secondly, there are the problems raised by an increasing rate of population growth in an already densely populated region. In India and Pakistan the density in some agricultural regions compares with that found in industrial areas in advanced countries. The rate of population growth in these countries has not, in the past, been exceptionally high. The trouble has been that it has tended to exceed —or at best to equal—the rate of growth of national income, which is one reason why there has been—until quite recently—no improvement in average income per head.

Population pressure of the type indicated above gives rise to a number of difficult economic problems. Full discussion would require a volume to itself. Certain aspects will be discussed more fully in Chapter VIII. Here only two will be mentioned.

The first is that of the 'age-structure' of the population. For some decades an increasing rate of population growth in countries such as India and Pakistan (and more recently in Ceylon), where it is due in the main to decreasing death and especially infant mortality rates, results in increasing predominance of young people (and to a lesser extent old people) in the population, as compared with those of full working age. That is, the number and proportion of the dependent population will increase, mainly because it is the age-groups of the earners which have had the lowest death-rates in the past. There will, therefore, be more and proportionately more people to be fed, clothed, educated, cared for in ill-health, etc. without themselves contributing to the national output (or income). On an average each earner will have to support more dependents. Hence in order even to maintain the present standard of life, earners will need to step up output substantially, and so will governmental public utilities and services. This, moreover, occurs at a time when the attempt is being made to start and extend welfare services of all types. More public revenue will be required, entailing increased taxation to be secured from a smaller proportion of the population, and/or from public concerns of all types (e.g. nationalized industries, public corporations, and Provincial or State undertakings).

The second example relates to unemployment and under-employment. The history of countries that are now advanced has not revealed or involved any necessary causal connection between pressure of population (or 'over-population') combined with an increasing rate of population on the one hand, and un- (or under-) employment on the other. It is recognized that a size of population beyond what is known as the 'optimum' (that is the economically best size of population under the existing system of production, knowledge and organization) does entail a lower standard of life than would prevail if the size of population were less. In advanced countries this has meant smaller earnings per head, owing to the competition for jobs, but has not necessarily led to the total unemployment of a substantial section of the population. Nor has industrialization, apart from some quite temporary dislocation involved by the need to change occupations, caused extensive or prolonged unemployment. Transitional unemployment and great hardship to some individuals and classes is not denied. But industrialization (and specifically mechanization), however labour-saving the new methods may have been, has in the longer run brought about an increased demand for consumer goods and, therefore, for labour, and resulted in higher earnings per head. Two main factors account for this trend. First, there has been a new and ever-growing demand for labour to produce the machines, implements, accessories, buildings and means of transport necessary for larger-scale production in factories and other plant. Second, the increased output per head, resulting from the combination of more capital with each unit of labour, has in the longer run led to higher earnings per head of the manual, salaried and managerial staffs, together with higher profits for the entrepreneurs and capitalists. There have been, it must be frankly confessed, deplorable but relatively short-term exceptions to this rule, during which—owing to faulty organization and monopolistic situations—employers have been able to exercise power to exploit their workers, but in the long run all classes have shared in the increased productivity of the improved methods of production. This is not to say that all have benefited equally, but merely that all classes have gained, whether or not directly concerned in the process of industrialization. This has happened because those whose earnings rose demanded more consumption goods (of varied types), more public and private services (e.g. more transport; heating and lighting; more education; more gardeners; more barbers and hairdressers; more tailors, etc.). Many also demanded more capital goods, e.g. for starting shops, workshops or factories. The producers of all these goods and services that became in increased demand were able to secure the resources and capital goods necessary to be combined with labour for their production, and their increased demand tended to raise the incomes of other producers. And so on—for several 'rounds'. This wave-like extension of increased demand and supply throughout the economy is what economists call the 'multiplier'.

Unfortunately, in India and Pakistan pressure of population and a higher rate of population growth do appear to be related to un- and under-employment. There is a serious scarcity of the other factors of production (cultivable land, raw materials of many types, the purchasing power or credit necessary to buy implements, cattle, better seed, fertilizers etc., and of 'enterprise' which might stimulate producers to take risks and introduce innovations) which have to be combined with labour if output is to expand. Moreover, where the bulk of the population is occupied in the cultivation of food—and particularly cereal-crops—increased demand from the industrial sector, manifesting itself in the first place by rising prices, does not necessarily tend to increase productivity.

In the short run, the sowing and harvesting of crops is seasonal, so that output cannot in any case be quickly increased. In the longer run a number of factors prevent a rise in prices from securing an adequate response in the form of an increase in output. Many holdings are already cultivated as intensively as possible, with existing knowledge, techniques and facilities (such as irrigation and manure, which may not be readily available). In addition many peasants are largely self-sufficing and sell only a small proportion of their output, whilst the holdings of yet others are so minute (perhaps 1 acre or less) that they may depend for monetary earnings on part-time wage-earning jobs, rather than upon the sale of agricultural produce. In both these latter cases the incentive from somewhat higher prices is a very minor one. In other cases the peasants with (say) average-sized holdings may prefer to sell less off their holdings (so long as they secure the same total monetary income) when prices rise, so that they can eat more of their own produce; or to sell as much as before (gaining a somewhat higher monetary income) even if the higher prices have stimulated them to produce more, and to consume the extra output—so that their marketable surplus has not increased. Another restricting factor is that, especially when (as is so often the case) the cultivators have undertaken to sell their marketable surplus to their creditors, the higher market prices may never pass from the middlemen and moneylenders to the actual cultivators. It is only if a rise in prices stimulates a larger marketable surplus that the 'multiplier' extends prosperity throughout the country as a whole.

It may be thought that the more prosperous agriculturists would act differently from those with high 'propensities to consume', or those who have contracted to sell at fixed prices to creditors. Sometimes this may occur. But the better-off landowners (at least until implementation of the land reforms of the 1950s) often depended for the greater part of their incomes upon leasing part of their land, whilst for several decades there have been legal restrictions on raising rents, which have made it difficult for them to secure a share in the higher prices from their tenants. Finally, where landlords employ 'crop-sharers' to till their land, the additional return for the greater effort needed to produce more by the 'crop-sharers' must be very great if (as is normal) 50 per cent of the crop goes to the landlord. This means, as the economist says, that supply is 'inelastic' to both price and income changes: i.e. that higher prices and larger incomes do not lead to any corresponding increase in output. Lack of money or credit, and the impossibility of extending the area under cultivation unaided, are also important impediments. Similar reasoning also applies to cottage and small-scale industrial workers.

But this is not all. There is trouble on the demand side also. Many people in urban and industrial sectors tend to demand not more of the products (cereals, hand and small-scale manufactured goods) of rural areas, but better quality and/or more varied goods obtained from domestic factories or from abroad. This has transferred part of the increased demand (for goods and labour) from the domestic to foreign producers.

Turning to the increased demand for labour to produce machines, tools, etc. which has been experienced during the industrialization of now advanced countries, we find once more that things do not work out so well in overpopulated developing countries. Mechanization, by definition, is labour-saving, and despite the great increase since partition in industrial output, the number of workers employed in modern concerns has risen very slowly, and at a much slower rate than the increase in the population of working age for the country as a whole. This is partly because the size of the non-agricultural sector is small in relation to the agricultural sector. Hence there are few opportunities for the expanding labour force in rural areas to secure employment in the new factories and industries. Moreover, the demand for labour to produce the machines, buildings, implements and accessories needed to set up the new large-scale consumer goods and other industries failed to absorb the unemployed because many of the 'capital goods' and accessories required are not yet produced in India and Pakistan (although a number of such industries are now being established). This means that, at least in the initial stages of industrialization (or mechanization), the increased demand for labour for capital goods industries is a demand for foreign rather than for domestic labour. As foreign exchange is a notably scarce factor, an increase in imports aggravates balance of payments problems. Even the establishment of capital goods industries involves some increase in imports, whilst it is obviously retarded by scarcity of capital. Hence the urgent need for foreign capital, whether by means of grants or loans.

Another important point is that even in the modern and progressive industrial sector there is already un- and under-employment, so that even here it appears that the demand for labour arising from industrialization is not keeping pace with the growth of population in industrial areas together with the overflow of labour from rural areas. Similar arguments apply to the proposals and attempts to mechanize agriculture, which might in some areas increase crops, but would not solve the un- and under-employment problem. The result has been that, ever since the inauguration of planning, both un- and under-employment have actually increased. The following estimate by the Indian Third Five-Year Plan (pp. 156, 157) is, therefore, truly alarming. This is that, whereas according to the Census of 1951 (occupational figures for 1961 being not yet available) non-agricultural labour in India numbered under 40 millions, in the fifteen years 1961–76, the labour force as a whole will increase by 70 millions, of which just on 47 millions will 'have' to be absorbed outside agriculture. This estimate ignores the backlog of un- and under-employed in 1961. We know of no historical instance of a rate of modernization (or 'industrialization') anything approaching that needed to absorb into the existing relatively small non-agricultural sector this huge number of workers in fifteen years. In Pakistan there is a similar problem, but no official quantitative estimates are available.

There has been much controversy about the phenomenon known as 'under-employment'. Here under-employment is used in the sense that in rural areas (and to a lesser extent in some industrial centres) much employment is divided between a number of labourers, each of whom works to less than full capacity (whether measured in hours per day, days per week, or weeks per annum). Controversy arises with regard to agricultural under-employment because it is said by some that many of these semi-employed workers could be removed to non-agricultural employments without any reduction in total agricultural output, whilst others say that in most regions all these workers are needed and employed at busy seasons (e.g. harvest time). In the latter case to remove any of them would reduce total agricultural output unless relevant adjustments in methods of cultivation or in the organization of agricultural work were introduced. This may well be true. It should, however, be remembered that where under-employment has existed over a lengthy period, its very existence has influenced methods of cultivation and the organization of work. As there has been and is no incentive to economize labour, techniques, methods of organization and other devices directed to that end have not been adopted. Some possible methods of remedying this situation will be suggested in Chapter VIII. In the meantime widespread under-employment reduces both output and the standard of life.

The third special characteristic of India and Pakistan which has greatly influenced the working of their economic systems is the fact that it is divided into two strongly contrasted sectors, i.e.

(i) *The Modern Sector*, in which methods of production and organization, wealth and income per head (amongst the 'top people'), and the standard of life approximate to those which are, of course, far more widely prevalent in advanced countries. There is reason to believe that the inequality of the distribution of wealth and incomes in India and Pakistan is greater than in many other countries (especially where the 'Welfare State' is the ideal). Luxurious living, especially as regards command over the services of others, is pronounced amongst a favoured few. But this sector is quantitatively insignificant. For instance, out of the total population of 438 millions in India (1961 Census), less than one million are income-tax payers, even though many of the latter are far from 'wealthy'.

(ii) *The Traditional Sector*, which is located in rural areas remote from urban and industrial districts and other centres of modern economic life. Here many millions of peasants pursue largely self-supporting agriculture, thus directly satisfying their own most urgent needs by their own efforts. The most primitive tribes, even today, do not even cultivate cereal crops. They live in hilly, afforestated areas, far even from villages where cereal cultivation and cottage industries are carried on. Indeed, they have practically no contacts even with other tribes. They live upon the meat of the animals they kill, catch or trap, and upon fruit and other natural products which they can collect, and at most grow a few vegetables around their self-made huts. But even the less primitive peasants, who cultivate cereal crops and grow (spin or weave) cotton for clothing, may be largely self-supporting and have few occasions to exchange their products for those of others, and still less to make or receive money payments. Even if they work at times for others, they may be paid—wholly or partly—in kind, and may receive and repay (or pay interest on) loans, in kind.

Even in the more prosperous and less isolated rural areas, where some cultivators are relatively comfortably off, others subsist mainly upon their own products, and sell only a minor proportion of their crops. Often they sell just enough to secure money with which to pay rent, or interest on debts, or to purchase salt, seeds and (too seldom!) fertilizers, or any other goods which they cannot produce themselves. From time to time they may buy cattle or certain implements.

Tribes and peasants of this type practise little division of labour in the sense of 'specialization' within occupations. But in rural areas there has been traditional horizontal specialization between occupations (and between the sexes) throughout the centuries. The economic results of the different nature of 'specialization' in advanced countries and in the traditional sectors of undeveloped countries, respectively, will be more fully discussed in Chapter III. Moreover, many peasants and other villagers depend very little upon monetary exchange. Even when they sell goods for money, they may do so not at competitive prices, but—for instance when they sell to creditors (to whom they may be bound as a condition of receiving credit, or 'advances') at prices fixed before the harvest is reaped. At local market-places they may not be in a position to bargain effectively, because of their urgent need to secure some money at once, but must accept whatever price they are offered. Moreover, the prices at which goods change hands are often not disclosed. Under such conditions there may be many market places, but few price-determining markets. Traditional or customary prices may well prevail over long periods for both goods and—in the form of wages—for labour. Where these conditions prevail it is said that the area (or sector) is 'traditional'—or non- or semi-monetized.

Now the first object of an economist is to examine, or 'analyse', the prevailing system by which consumers satisfy their wants and needs, and producers (of goods and services alike) supply what consumers want and can pay for. In an advanced economy this mutual process is carried out by division of labour, i.e. the sale of one's own produce or services for money and the purchase with this money of the products or services of others. How much a producer (or seller) can buy with what he sells depends upon the relative prices of each unit of what he sells and each unit of what he buys. Hence, Western economists, on the assumption that the economy is based upon exchange effected through the medium of money, are primarily concerned with analysing what is called the 'price-mechanism', i.e. of how prices are determined in a competitive economy. This involves consideration of the factors underlying demand and supply, and of making allowances, where necessary, for restrictions (of various types) on the freedom of competition and for deviations from the other underlying assumptions.

Hence, where there is a substantial traditional sector, in which price-determination depends largely on non-competitive factors, it is clear that this part of the economy cannot be treated, for the purpose of either analysis or policy-making, in precisely the same way as advanced countries (or the modern sectors in underdeveloped economies). It does not, however, follow that basic economic principles and methods are completely irrelevant. Without systematic logical reasoning there is little hope of being able to treat the 'traditional' sector as in any way part of the economy as a whole.

At this stage, all that can be done is to point out how the existence of a substantial 'traditional' sector influences importantly the way in which an economy works, and the effectiveness of policies designed to achieve given objectives.

The most important way in which a large traditional sector affects economic development—once a stimulus to change has been introduced at any point—is by preventing, or at least retarding, the extension of such a stimulus throughout the economy as a whole. A number of ways in which the 'multiplier'—as this process of extension of a stimulus has been called—is rendered sluggish, or may be brought to a halt, have already been mentioned in relation to pressure of population. Here, however, a few more points may be added, with specific reference to the traditional sector. Professor Cairncross has said that 'the essence of the multiplier is that the more people spend' —whether on consumption or on investment goods—'out of any increase in their income the more any initial change in spending is multiplied in its repercussions on the level of income of the community' as a whole.[1] For instance, if a good harvest increases a cultivator's output, or income, the more he spends on the products of others (e.g. on better farm implements, better seeds or fertilizers, and better clothing) and the more these 'others' are stimulated to increase their output and hence incomes, and to purchase more from yet other people, the brisker business will be, so that increased productivity and prosperity will spread throughout the economy. But what happens in a non-monetized and poverty-stricken economy? In a good season the cultivators may consume more of their own produce, but may buy few more goods from their neighbours, except perhaps gold and silver ornaments, which they hoard. Their productivity is not increased, nor is that of their neighbours. Moreover, as has already been noted, in many cases output cannot readily be increased, even in response to higher prices engendered by increased demand. This ineffectiveness of the 'multiplier' under such circumstances cannot, it is true, be attributed solely to the small part played by money; it is partly the effect of poverty. Nor is this sluggishness confined to the 'traditional' sector. Nevertheless, the lack of dependence upon money as a medium of exchange accompanied, as it usually is, by the absence of a habit of hoping and seeking to improve one's economic position, is certainly an important element aggravating the situation. All this, in its turn, makes it extremely difficult to utilize economic incentives as a method of stimulating economic development on a cumulative basis, and is one of the reasons why occasional bouts of prosperity peter out instead of activating permanent improvement. For other reasons, to be discussed later, even in the modern sector the multiplier has tended to work weakly in India and Pakistan. But this is another matter. The continuance of a substantial traditional sector is closely connected with the fourth and fifth features of India and Pakistan's economy which must now be briefly mentioned.

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[1] *Introduction to Economics*, 3rd Edition, 1960, pp. 424, 425.

The fourth feature is India and Pakistan's high dependence upon agriculture—and primitive agriculture at that. Industrial and commercial communities obviously cannot be self-sufficing. Moreover, even in advanced countries (except where, as in Denmark, agriculture has itself been 'industrialized') the average incomes of agriculturists are normally substantially lower than those of non-agriculturists. Excessive dependence upon agriculture, especially where methods of cultivation remain backward, is certainly one cause of the prevailing poverty. Moreover, while under-employment persists in rural areas, the earnings of cultivating families have to be divided amongst many dependents. Here, indeed, the vicious circle of 'poverty-inefficiency-poverty' is found to be most prevalent.

The fifth feature to be emphasized is the continuing far-reaching influence—in economic and other spheres—of a number of social institutions, customs and traditions that have most adverse effects on productivity and the standard of life. Such institutions, customs and traditions are particularly restrictive in rural areas, but even the highly educated and modernized classes are affected thereby. There is, for instance, the continuance of the economically pernicious disdain for manual labour (including skilled technical work) amongst the better-off classes. It is the preference for 'academic' rather than technical education that largely accounts for both the scarcity of technical personnel and the surplus of arts graduates, which later results in widespread unemployment amongst the latter. In India caste restrictions—despite the legislative removal of the former political and social disabilities attaching to the untouchable (or scheduled) castes—are the outstanding example, although religious beliefs and customs, the family system, and the traditional position of women (from which many individuals and some classes have emancipated themselves during recent decades) are closely connected therewith and play their part in dictating or limiting the choice of occupations, prevention of geographical and occupational mobility, imposing dietary limitations, preventing the elimination of insect pests, noxious wild and useless domestic animals, and preventing the best organization and utilization of land holdings. Even the hope or ideal of 'progress' is absent amongst many classes, and the poorest and lowest are bound hand and foot by such restrictions. It has, for instance, been said recently that—despite the wide publicity given to land reforms, of which one objective was the more equal distribution of holdings—members of the scheduled castes do not even dare to express the hope that they may one day share in the redistributed land or other benefits. Although caste, as such, obviously does not affect Pakistan in the same way as India, nevertheless, very similar class distinctions, and their repercussions on economic life, prevail and persist.

Social and especially linguistic distinctions are one cause of the lack of national unification in both India and Pakistan, and of the prevalence of regional or local loyalties and separatism. This has tended to destroy national cohesion, to create regional rivalries, and has even led to the fear that the next few decades may experience the division of India into a number of separate units, and the separation of West from East Pakistan. This latter feature naturally weakens the power of economic planners and imposes limitations on the implementation of economic (and other) policies, and on the much needed national will to co-operate whole-heartedly in the drive towards 'take-off' and progressive economic development.

Sixthly, India and Pakistan suffer from a low level of and extent of primary education, and (as already mentioned) a type of higher education insufficiently related to the quantitative and qualitative needs of a developing country. This feature reinforces the economic defects arising from the social institutions and customs already mentioned. Great efforts are now being made to extend primary education, and the desire of parents to secure better education for their children is indeed one of the most hopeful signs of a new awakening which, if fulfilled, would do more than anything else to promote economic progress.

Seventhly comes the lack of capital resources (in the forms of material and personal equipment, and of finance for investment), in relation to the size and needs of the population. Greater capital resources are often placed first amongst the urgent needs of developing economics. Here it may briefly be said that they are a necessary, but not a sufficient, lever by which to engender economic development.

It has sometimes been suggested that lack of enterprise has been as important as lack of capital, and may have been a partial cause of the scarcity of capital. This, however, is highly controversial, as lack of opportunities for enterprise under the existing conditions may have concealed potentialities for enterprise.

Lastly, although this point cannot be considered a 'feature' of India and Pakistan, attention may be called here to the difference between the role of the government in countries which have already attained self-sustained growth, and the governmental needs of 'developing' countries.

The interest of the government of an advanced country—unless it pursues a completely *laissez faire* policy—is to encourage as rapid as possible a rate of growth. In order that growth should be continuous and smooth, this implies a policy designed to limit economic fluctuations. But the governmental policy of a developing country—whether or not it adopts planning—is to encourage what is called 'take-off' to self-sustained growth. This implies a rate of growth sufficient to enable a higher rate of savings and investment than has hitherto ruled. Savings and investment in the past may well not have been more than sufficient for the maintenance (including repairs and replacement) of capital equipment, and of the stocks and liquid finance, or money, needed to make the wheels go round (i.e. 'circulating capital'), together with provision for the increasing population of a similar amount of fixed and circulating capital per head. The higher the rate of population growth (assuming that the population is growing) the more must be saved and invested even to maintain the standard of life. If, in addition, the national objective (as in India and Pakistan) is to combine growth with greater equality of distribution and the provision of welfare services (even of an elementary type) for the poorer classes, the rate of savings or investment must be greater still. This accounts for the great desire to secure foreign capital during the difficult transition (or 'take-off') period.

Enough has been said to show that the working of the economic system in countries such as India and Pakistan is strongly influenced by the special features indicated, and also that these features are closely inter-related, which tends to re-enforce their unfortunate economic effects. These features also affect the choice and effectiveness of economic policies. Nevertheless, it will be found that in analysing the economic systems in undeveloped countries, the economist must use 'Western' economic principles and theories, which—with suitable modifications in assumptions and methods—can act as a guide to both understanding an economy's mechanism and the choice of policies. This is not to suggest that the economist can find a solution to all the problems of undevelopment. But neither can he solve all the economic problems of advanced countries. The economist, Eastern and Western, should try to develop methods of analysis and criteria for policies appropriate under widely varying conditions, whilst students in developing countries should try to understand why certain concepts and methods stressed in the West, appear irrelevant or even incorrect for their own country. They should not, however, let this undermine their interest in and study of 'Western' economics, which might lead to throwing the baby out with the bath-water! Increased mutual understanding and patience are what are needed.

CHAPTER II

THE ECONOMIST'S APPROACH

A. The Meaning, Scope and Methods of Economics
B. The Price, or 'Market' Mechanism

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A. THE MEANING, SCOPE AND METHODS OF ECONOMICS

There is no generally accepted definition of 'Economics', although there is considerable agreement as to its scope. Many definitions have been suggested,[1] but many of these are either too general and vague—offering little guidance as to what is, and what is not, an 'economic' matter—or too specific, so that topics usually and usefully discussed by economists may be excluded. This arises mainly because the subject matter of economics overlaps at many points with other social sciences, so that the distinction between the scope of economics and of other social sciences becomes a matter of attitude (or, as some say, 'convenience') rather than of separate fields of study.

For instance, the economist is not concerned with religion, as such. But he is concerned with the influence of religious beliefs, institutions and customs on economic life and activities. From the purely economic point of view, the Indian 'sacred cow' which—however old and decrepit—must not be killed, but must share scarce fodder with useful beasts, is an obvious case of waste of resources. Similarly, the taboo on the castration of bulls amongst Hindus has disastrous effects on breeding, and hence on the improvement of economic resources. Again, the Moslem prohibition on the eating of pork, and the strict vegetarianism of many Hindus, prevent the use of easily procurable resources. The allegedly 'simple' (implying 'natural' and 'cheap') diets which saints, and specifically Gandhi, adhered to irrespective of where they were to be consumed, have been estimated as very costly—in both monetary and real terms ('real' terms indicating the demand made upon both material resources, and services and utilities, whether provided by public authorities or by individuals)—when they involve lengthy transport and necessitate special precautions (such as refrigeration) to prevent deterioration during transport and delivery. This is because 'production' in the economic sense includes not only the actual cultivation and harvesting of agricultural crops and products, or the manufacture of finished goods, but all other processes—such as transporting, packing, storage and marketing (including retail sale)—which are in most cases unavoidable if goods are to be made available for final consumption. Everyone knows that, when he buys goods from a distance, the payments to be made include cost of transport and delivery; similarly when he consults a lawyer or a doctor, or sends his children to fee-charging schools or universities, he has to pay for such services. Even when a public authority provides certain services (e.g. primary education) 'free', the tax-payers have to pay the cost of providing such services. Hence the economist draws no distinction between the 'production' of material goods and of services. In both cases 'production' refers to the provision of 'utility', that is, anything that is capable of satisfying needs or demand.

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[1] See, for instance, K. Boulding, *Economic Analysis*, 1st Edition, p. 3.

To take another example of the economic effects of social customs and institutions, caste rules in India limit the choice of occupations and thereby the division of labour, whilst the degree of mobility of labour (between regions and between occupations) and of specialization (which necessarily involves exchange of goods and services) form two most important factors affecting efficiency and productivity. Moreover, all rules or customs limiting the economic activities of individuals (or classes), also limit 'choice'—the extension of which is held by economists to be an important, if not the most important, criterion of economic development.

The importance of choice arises from the scarcity of goods and services in general in relation to people's desire for goods and services, and their power to secure them. If goods and services were both in ample supply, and free for the taking, there would be no science of economics: no need to 'economize', or to choose to spend one's limited income on this, rather than on that. 'Desire' is not the same thing (from the economic point of view) as 'demand' for goods and services. To make this clear, the term 'effective demand' is sometimes used. Effective demand means desire backed by the power to secure; in a money economy this means 'power to purchase'. But no one can purchase goods and services to an unlimited extent. Some people (e.g. holy men and professional beggars) do not desire to 'purchase' at all: they 'choose' to be content with what they are given. Some very rich people receive more income than they desire (or choose) to spend, or even to invest, so they give away part of their incomes: but even they cannot afford to feed the hungry millions of the undeveloped countries. Most people desire more goods and services (or special types of goods and services) than they have power to purchase: or (if they have few personal 'wants') would welcome more purchasing power in order to be of greater help to others. In all cases choice has to be exercised, and the wealthiest nation is that which can offer the greatest choice—of occupations and ways of life; of goods and services; of investment, etc.—to its people. A large part of economics, therefore, consists of studying people's choices: of how, why and to what extent people choose this, rather than that. In other words scarcity, with its consequential limitations on choice, forms one of the principal objects of investigation by the economist, no matter what is the type of economy. The importance of choice has indeed been recognized (in rather different terms) in the Indian First Five-Year Plan (p. 5) where the central objective of planning has been defined as 'to initiate a process of development which will raise living standards and open out to the people new opportunities of a richer and more varied life'.

Indian and Pakistani planners are well aware of the adverse economic effects of various social institutions and customs. Thus the Indian Third Plan says (p. 2) that 'to combat the curse of poverty . . . involves basic social and economic changes and the replacing of the old traditional order by a dynamic society'.

Another overlapping sphere is that of general and technical education. Education, in itself, is not the concern of economists, but all agree that the provision of adequate and appropriate education and training—despite its heavy cost—is one of the most important factors affecting the productivity and development of a nation. 'Overlapping' is clearly of outstanding importance in the sphere of policy formation, where political, social or psychological factors may prevent the introduction of economically advantageous policies. For instance it may (or may not!, the question remains controversial) be agreed that output per acre—the maximization of which must be the main objective, as contrasted with the maximization of output per cultivator, so long as land is the scarce, and labour the plentiful factor in agriculture—could be greatly increased by co-operative farming. But the traditions and psychology of the agriculturists in, for instance, India and Pakistan are strongly opposed to the relinquishment of individual—or family—rights in and control over land, with the consequence that experiments in this direction have, for the present, to be confined mainly to strictly limited pilot projects.

Professor Benham[1] suggested two definitions of Economics: (i) 'The study of the factors affecting employment and standards of living'; (ii) 'A study of the factors affecting the size, distribution and stability of a country's national income'. Although at first sight these seem to differ in scope, a little thought reveals that each implies what the other states. The first has the advantage of specifically mentioning employment; but the second, by its reference to the distribution of the national income—which in important respects depends upon employment—also covers this aspect of economic life. The second has the advantage of specifically mentioning 'stability'—which in monsoon countries and those largely dependent upon various external conditions, plays such a large part in determining prosperity, or the reverse, at particular periods. These definitions tend to clarify what is the economist's task in undeveloped as well as in advanced countries. Should a more expanded definition be desired, the following may be considered: 'Economics is concerned with the material aspects of all human activities, and more specifically with the consumption, productive activities and dealings of all individual, family and corporative businesses, including those pursued as a way of life, rather than for profit-making.' The term 'corporative' is, of course, intended to include the economic activities of governments and other public authorities. The slant of this definition is intended to stress the inclusion of the traditional sector within the economist's purview.

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[1] *Economics*, 6th Edition, 1960, pp. 17 and 57.

But definitions, whether good or bad, do not take us far. The student wants to know more explicitly what he is going to study, and how he is to set about it.

In considering the scope of economics it is first of all necessary to distinguish between 'positive economics', 'normative economics', and the 'art of policy-making'.[1]

Positive economics seeks to discover truths, whether they are derived from a study (or 'analysis') of the mechanisms which activate particular economics, or whether they result from the establishment of general principles arising from logical arguments based on stated assumptions.

A systematic analysis of the economic features of a particular country seeks to discover and explain how and why that economy works as it does. What makes the economy 'go'? How do the various parts fit together? By what mechanisms are economic changes and trends initiated, determined and limited? The economist also tries, where possible, to discover and explain the magnitude of the actual economic quantities involved; for instance, the size of national and *per capita* incomes, the level of prices, the rates of interest, and the rate of saving and investment.

He may start by enquiring how members of the various sectors (traditional or modern, rural or urban, agricultural or industrial, employers or hired workers, etc.) satisfy their wants or needs; what are and what accounts for the relative scarcity of particular consumption goods (and services). Even under the most primitive conditions—where, for instance, forest dwellers live by gathering natural products and building their own shelters from easily accessible materials—some 'labour' is required. At a slightly higher level, such as that of hunting tribes, simple tools or implements (such as bows and arrows, or traps) are required to catch and kill their prey, so that 'capital' comes upon the scene. Also in the traditional sector, but at a less primitive stage, the peasant cultivator may eat what he grows on his small-holding, spin and weave self-grown cotton for clothing, build his own hut, and make most of his own simple implements. But he has to pay land revenue, or rent, and—should he be in debt—he must pay interest or (less often!) repay the debt. He may also have to secure certain necessities, such as salt or iron, which in most areas he cannot produce for himself. The payments required may be made in kind (from a share in his crops), or in money (if he sells part of his produce), but in either case 'exchange' now occurs. Methods of production and exchange (of one sort or another) and the functions of the various 'factors of production' therefore come into the picture at an early stage.

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[1] P. T. Bauer, *Economic Analysis and Policy in Underdeveloped Countries*, p. 7.

So long as an economy, or one sector of an economy, remains 'traditional' (and largely self-sufficing) the members can do little more than secure the bare necessities of life. As soon as exchange of goods (and services) occurs, and still more, when exchange is effected indirectly—that is, through the medium of money—the whole system becomes much more complicated, and, at the same time, affords greater opportunity for securing a higher standard of life. It is found that increased productivity and output *per capita* follows largely on account of increased 'specialization' (or division of labour), which saves time and equipment and leads to greater expertize; an extension of exchange, or trade (whether domestic or foreign), which in effect again means a greater degree of specialization (based partly, but by no means entirely, on differences in natural resources) and, therefore, of efficiency; greater mobility of the relevant factors of production (labour and capital), which means that these factors become placed where they are most needed, and are, therefore, of greatest utility; and the rise and activity of a body of entrepreneurs, that is persons who specialize in bringing together the other factors of production—including land (or 'natural resources')—and in experimentation and risk-taking.

In India and Pakistan practically all types of economic production and organization—from the most primitive to the most sophisticated—are to be found today. What the economist wants to know is what is the inter-relationship between the various sectors; what are the economic motives and mechanisms at work in each sector and throughout the economy as a whole; why some sectors and groups are more advanced than others; and what prevents the modernization of the whole economy? It is, in other words, one of the economist's tasks to fit together all the pieces in this jigsaw puzzle.

The economist will not get far if he relies mainly upon a descriptive account of the economic facts of life. He must bring 'theories' (implying generalizations and principles) to his aid. As Professor K. Boulding says, 'theories without facts may be barren, but facts without theories are meaningless'.[1] To help him in this task the economist 'seeks to establish generalizations' (or 'principles', or 'laws') 'by observing and analysing apparently diverse phenomena to detect uniformities underlying their diversity'.[2] To put it very simply, he starts with simple cases, in which he studies human behaviour under varying circumstances, and finds that he is able to discern certain patterns of behaviour which recur when underlying circumstances are similar—that is, when certain assumptions are fulfilled. In such cases, particular changes (such as a rise or fall in prices) can be seen to lead to particular results (such as a fall or rise in demand). The usual starting point is indeed a study of demand and supply in a price-determining market, at a particular time. By logical deduction the economist can draw certain conclusions, which are incontrovertible. These generalizations, or principles, then form a collection of systematic knowledge or 'laws' which consist of inescapable deductions from given assumptions. They cannot, as is sometimes suggested, be true for an advanced country, but not for an undeveloped country.

Whether the assumptions underlying such deductions are realistic or not is a different question, and is a matter of fact, not of theory. What must be realized is that the applicability and utility of such 'laws'—in, for instance, an undeveloped economy—is not necessarily limited to cases where all or even most of the original assumptions are realistic. It is often possible to vary, or modify, the assumptions—one by one—and then to deduce what difference this would make to the conclusions. This procedure may lead to a further extension of our knowledge. It may also enable the economist to foresee what would be the economic results if certain policies were pursued (or if certain external events occurred), in the absence of counteracting non-economic factors or forces; that is as the economist says, 'other things remaining equal'. In this way the underlying assumptions can be made more realistic, although it must always be remembered that what is more realistic for one economy or country may be less realistic for another.

A further step can then be taken. The simplest case can be held to refer to a situation at a particular moment of time. The analysis can next be extended to alterations in the 'other things', and to changes over time. Thus it becomes possible to generalize about what happens under varied factual circumstances, and with varied (but always precisely stated) assumptions. Examples of simple cases of this type of reasoning (or analysis) will be given in later chapters.

This method of selecting certain economic processes for systematic analysis, and proceeding from simple to more complicated cases, it is now fashionable to call 'model-building'. This sounds very grand, but starts very simply. A model may be defined as a systematic formulation (whether expressed verbally, by symbols, or diagrams, or mathematically) of economic behaviour, under specifically stated assumptions, from which logical conclusions can be drawn. Or—still more simply—a 'model' may be defined as a systematic exposition of a logical argument. By its very nature, an economic 'model' (like the model of a building or a village) represents on a small scale a much larger structure, and, therefore, must be simplified, and omit irrelevant details. One reason for such model-building is that economists, unlike physical scientists, cannot experiment (except, perhaps, by means of policies, which may test whether or not certain economic principles are based on realistic assumptions). In some cases, where relevant data are available, the attempt may be made to replace verbal generalizations, or symbols, by quantitative figures, and to work out the results. The danger here is that the data used, especially those of underdeveloped countries, may be subject to such large margins of error that the results may be misleading. This may well occur when planning is based on models worked out on the basis of supposedly realistic data.

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[1] K. Boulding, *Economic Analysis*, 1st Edition, p. 5.

[2] P. T. Bauer, *Economic Analysis and Policy in Underdeveloped Countries*, p. 7.

The more complicated a model becomes, the greater will be the economy of expression and clarification of argument, if diagrams or other mathematical devices are used. Unfortunately, also, the greater will be the danger of forgetting the underlying assumptions, in which case any attempt to apply such a model to explain a problem in an undeveloped country would be quite useless. In any case the highly sophisticated mathematical models constructed by modern economists can with difficulty, if at all, be applied even to advanced countries, and are acknowledged to be completely irrelevant for undeveloped countries. Indeed, 'some of the main developments in economics over the last half century or so are of little use for the study of underdeveloped countries'.[1] The basic concepts and 'tools' of Western economic theory have, however, a wide application, and what is needed is in no sense new, or special 'theories', but further study of how appropriate economic concepts and tools can be used to throw light on the problems of undeveloped areas, and help in the selection of policies (on purely economic grounds), after which the actual policy-makers should also take into account all relevant social and other non-economic factors and considerations.

In the following chapters the basic concepts of economic theory will be stated verbally, although in some cases the latter may in addition be illustrated by simple graphs.

Having explained what is meant by 'positive economics'—a term that is usually more specifically applied to theory—a distinction must be drawn between it and both 'normative economics' and the art of policy-making.

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[1] P. T. Bauer, *Economic Analysis and Policy in Underdeveloped Economies*, p. 9.

'Normative economics' refers not to what is, but to what ought to be. This involves value judgments (not incontrovertible facts or truths), and depends upon the social, as well as the economic, objectives of a particular country. The 'art of political economy' is concerned with policy-making: i.e. of how to attain specified ends. This, like normative economics, involves value judgments and depends upon many non-economic considerations, so that (as indicated above) it is by no means a sphere in which economists have any prescriptive right or predominance. All that the economist can do is to indicate what, other things remaining equal, will be the economic results of particular policies. But policy-makers can make no assumption that other things will remain equal. Should they try to introduce policies which—if implemented—would clash with political, religious, or other social beliefs, customs or traditions, the result might be, at best, a failure to co-operate (on the part of those affected) or, at worst, revolution. For this reason it is highly dangerous for undeveloped countries to adopt, uncritically, economic policies that have worked well in advanced countries. In practice it is impossible to separate economic from social considerations—a fact that is of fundamental importance in policy-making. Here we may revert to the example quoted above (p. 32), where it was suggested that an attempt to enforce co-operative farming might (for non-economic reasons) result in widespread agrarian discontent and uprisings.

It is the failure to draw a distinction between the nature of positive economics, and the foundations upon which the art of policy-making must be based, that has often cast doubt upon the value of the former for undeveloped countries. Let us take a simple and well-known example. In India, in the 1920s, it was desired to increase the output of coal by inducing the largely immigrant miners (who normally worked in the mines only 3–4 days per week, and then returned to their own small-holdings) to work more shifts (or days) per week by raising wage rates. This policy was based on the laws of supply and demand, which state (amongst other things) that an increase in price (which in the case of 'labour' means wages) tends to stimulate supply. What actually happened, when wages were raised, was that the labourers worked fewer shifts (or days) per week, and returned home after the point was reached at which their absolute earnings were approximately as great, but no greater, than before. The result was actually a slight fall in total output, as the higher wage-rates enabled the miners to earn as much as before for a smaller output. Did this discredit the laws of supply and demand? Not at all. It merely showed that an underlying assumption was unrealistic in this particular case —but not necessarily in other cases. The explanation was that these labourers preferred to work on their own holdings, but were unable to secure a surplus from their land which, when sold, would provide sufficient cash with which to make the money payments which were necessary on account of land revenue, or rent, or interest on debts etc. As soon as, at the higher wage-rates, they had earned sufficient cash for such payments, they 'chose' to return home, and either enjoy more leisure, or (perhaps) produce more vegetables or other goods for their own consumption.

Another reason for discontent with Western economics may be that in dealing with the working of an economy as a whole—the relations between the various sectors of and classes in an economy, the financial and monetary institutions and relationships, the national income and its distribution, etc.—Western economists usually assume the prevalence and predominance of certain economic features, such as the universality of the price-determining market system, the existence of advanced types of banking and credit institutions, and so on. Most general economic texts adopt this attitude, all with primary reference to advanced or (as is sometimes said) 'capitalistic' economies. Hence much of the discussion ignores some topics that are of primary importance to undeveloped countries. What the student wants to know, for instance, is how to secure the extension throughout his country of the mechanisms and institutions described in the text-books (and which may well exist in the limited 'modern' sector) and what this might contribute—with or without adaptations—to his country; and, above all, how the role of the state can be extended and modified to secure the so-called 'take-off' into self-sustaining growth. How, for instance, can the price and market system be made effective in a developing country so that the Government can secure the necessary economic power to control the economy and carry out its plans?

It must not, of course, be supposed that the following chapters, which concentrate solely upon elementary economic concepts, will even attempt to answer these fundamental and extremely difficult questions. All that will be attempted is to explain to the student some of the elementary tools of analysis, so that he may proceed on a firm basis to more advanced studies.

Here it may not be out of place to repeat that undeveloped countries have certain advantages over countries which are now advanced, but which had no such advantages when they were striving for self-sustained growth. These are, first, the power to adopt and, where necessary, adapt the economic, scientific and technical discoveries and knowledge of advanced countries, without going through the whole lengthy process of invention, experimentation and research:

and second, the possibility of avoiding some of the mistakes made in the past by now advanced countries. But these opportunities can only be taken advantage of and utilized if the general principles underlying economic progress, and the operations of the institutions in which economic discoveries and devices are now crystallized, are fully understood.

The short conclusion of the above discussion is that basic economic principles, as developed in the West, are essential for an understanding of the problems of undeveloped economies, but that much fresh work remains to be done, especially on the applied side.

B. THE PRICE OR MARKET MECHANISM

In democratic advanced countries (i.e. excluding those that practise totalitarian planning)—which will henceforth be called simply 'advanced countries—the price or market system is the mechanism through which the economy works. It is not, of course, the prime mover in the economy. The motive power comes from the people. But people use the price or market system to transmit their desires, as consumers, to the producers, whilst the latter, through this system, convey to the consumers the terms on which their products—whether goods or services—are to be had. Similarly, manufacturers and the producers of capital goods make known through the price system their need for raw materials, semi-manufactures, and employees (salaries or wages being the prices of workers); those who have money capital that they cannot, or do not wish, to use themselves make known through the price system (interest being the price paid for loans) the terms on which they are willing to lend; and those who require but have not got capital, the terms on which they are willing to borrow. Those who wish to let their land, and others who wish to lease it, use the price or market system in a similar manner. Hence the price system, through its determination of the money rates of exchange between all types of goods and services, indirectly influences the nature and quantity of output and sales, the nature and quantitative consumption of goods and services, the allocation of national resources (at least in the private sector) between varied uses, the quantity and direction of investment (again at least in the private sector), the size and nature of foreign trade, how the factors of production will be combined (for instance how much labour will be used in relation to capital goods, or to land—that is the 'choice of techniques'), and the size of the national income and its distribution between the factors of production and between individuals. To say that the price, or market system, influences all the above items is not, of course, to say that it determines them. The wealth of nations depends upon much else: for example, upon natural resources (in the broadest sense); the number, innate and induced abilities and the energy of the population; the character and stability of the Government; the relations of a country with other countries; and the prevailing social institutions and customs. But when due recognition has been given to these fundamental causes of prosperity or poverty, in an advanced country—and also to a significant, even though a lesser, extent in an undeveloped country—the needs and desires of the people are satisfied (so far as they are satisfied at all) by using the price or market system to 'ration' scarce goods and services amongst consumers or purchasers, and to determine the occupations of all who labour or produce—whether with their hands or their heads. Even the owner of property, e.g. land or a mine, who does not raise a finger to cultivate his land or to raise minerals from the earth, produces utilities when he lets his land or mine to others who will perform the actual labour, and it is through the price or market system that the terms of leasing are set. Whether it is equitable that a rich reward is reaped by an absentee landlord in return for leasing his land is another question that, however, does not concern us at this point.

It is the prevalence and importance of the price or market system in advanced countries that has led economists to base economic theory on an analysis of demand supply and price, on the assumption that prices are formed in the open market ('open' in the sense that access is unlimited), in which competition prevails, and where buyers and sellers act in accordance with economic—or 'rational'—considerations.

It is obvious that these assumptions are not 100 per cent fulfilled even in advanced countries—and even less so in undeveloped regions. For instance, competition is never completely unfettered. In all countries governmental actions and policies affect prices, demand and supply directly or indirectly. Government policy may, for instance, affect the market system by imposing prohibitions, quotas and tariff or excise duties on the output, import or export of particular goods: or by subsidizing or giving tax concessions to certain industries. It is unnecessary to attempt to enumerate here the multitudinous ways in which such policies may modify the working of the price system. But if it desired to alter, through governmental policy, either the economic pattern as a whole, or some of the threads of which it is composed, this may be accomplished by acting upon one or another (or all!) of the factors which, taken together, form the 'market'. On the other hand, if policies are introduced that ignore the 'laws of demand and supply', undesired results are apt to follow. For instance, if maximum prices for foodstuffs are fixed (below the competitive level) in the supposed interests of consumers, supply is checked and the establishment of a black market is encouraged (as occurred so disastrously in India during the Second World War). Again if minimum wages (above the competitive level) are fixed, as has been done in the Indian Union for industrial labour, the consequential rise in the costs of production of the industries employing such labour will either reduce profits (and thus act as a disincentive to enterprise), and reduce output (and hence the demand for labour), or stimulate the replacement of some labour by greater use of machinery or by some reorganization of the use of labour. In the latter case efficiency may be increased, which may well be considered worth the 'cost' of a smaller demand for labour, or other reasons for raising wages may influence the decision. But the effects on the demand for labour should not be overlooked.

There are many other ways in which the market mechanism may be influenced. Only two will be mentioned here. The first is that competition may be prevented, or limited by the formation of monopolies in either the public or the private sector. The second is that external events and policies—whether world-wide or due to the actions of other countries—may influence the price system in a particular country: for instance, high duties levied on goods from the country under consideration may check its exports (and output) and also its power to import, which may set up a whole series of adjustments extending to the whole economy. But, once again, in all the examples given, such actions or events make their impact through their influence on one or another of the factors which compose the market.

These divergencies, in real life, from the assumption that competition prevails which underlies the simplest form of demand and supply analysis, do not detract from the value of such analysis, because—as we hope to show in subsequent chapters—appropriate allowances can be made in applying economic analysis to realistic situations, so that useful conclusions can still be drawn.

Next a word must be added about the assumption that buyers and sellers respond to changes in demand, supply and price on rational grounds. The first point is that it is, even in an advanced country, unnecessary to assume that all buyers or sellers act in this way. It suffices, for the analysis, if most of them do. Personal experience in England revealed a case in which one shopkeeper refused to sell to customers of whom he did not approve. A customer wanted to buy a shirt, but the shopkeeper said 'I have none your size', without ever enquiring what was that size. On another occasion he said, 'I cannot serve you now, as I am about to shut my shop', which he proceeded to do. But this did not affect the general situation. All that is necessary for demand and supply analysis is that, on the whole, buyers are anxious to buy more, and sellers to sell less, if price falls—and vice versa.

In the traditional sector of an undeveloped country a price change often fails to elicit the expected response. Despite inadequate and unreliable data there is some evidence that, for instance, some Indian cultivators do not respond readily to price incentives, and this constitutes a difficulty for planners. This appears to occur mostly in very poor districts (and may be explained sociologically). But elsewhere—in more prosperous areas—the Indian cultivator is as anxious to improve his economic position as anyone else. Moreover, what may be needed, in some cases, is a broader definition of what is 'economic' or 'rational' behaviour. Reverting to the miners who produced no more coal than before after their wages were raised (see p. 37 above), it may well be considered that their preference (perhaps) for more leisure and more home produce, rather than more cash but more work in the mines, is perfectly rational. Economists have recently paid more attention to the choice (in advanced countries) between higher wages and more leisure, and British trade unionists may, at times, be willing to prefer shorter hours to higher wages (although they may try to get both!). But, again, this does not invalidate economic analysis: it only stresses the need, in applying this analysis to particular cases, to examine most carefully the exact circumstances before drawing practical conclusions.

Having shown and illustrated the very great importance of the 'price or market system', it is now necessary to explain quite precisely what is meant by this term, and to enquire what the distinction is, in this respect, between an advanced and an undeveloped country.

In the first place it must be made clear that a 'market' in the economist's sense is not the same thing as a 'market-place'. Indeed, the economist's 'market' does not even necessarily have a specific location. The economist's 'market' entails that certain economic forces prevail that ensure an inter-relationship between demand, supply and price such that a change in any one of the three leads to determinate, but not necessarily proportionate, changes in the other two. A 'market', in this sense, means a price-determining market, and the 'price' system is one that embraces demand and supply. Thus, to the economist, 'demand' means 'demand at a given price', and supply means 'supply at a given price'. Thus to speak of demand being greater than supply, or vice versa, without mention of price, becomes meaningless.

Some actual physically-located market-places, where goods change hands, even if they are bought and sold in exchange for money, do not result in the formation of a market price. In such a market-place there may be no systematic relation between the prices at which goods (or services) change hands. An extreme but well-known case is that of the Eastern bazaar. Here similar goods may be sold at neighbouring stalls, but the prices given by a foreign tourist for brass utensils or carved ivory ornaments may differ astonishingly from those given by an indigenous inhabitant. There may also be substantial differences between the prices given by one tourist or another, and by one local purchaser or another—so it is not just a case of fleecing—or cheating—the foreigner (which under some circumstances can be done in a price-determining market). In the bazaar there is 'plenty higgling', but no systematic price-formation. Other less extreme cases can also be instanced. Traditional prices may prevail, or official prices may be fixed. Sometimes farmers (or their wives) may bring surplus milk or other produce to be sold at any price, and such goods may be sold quickly at very low prices, for fear that they may not be sold at all. Such prices may have little relation to the conditions of demand and supply; the market-places where such transactions occur do not determine a single 'market price', and no 'price-system' results. In Chapter I several reasons have already been given for this state of affairs: the prices at which sales take place may be kept secret, whilst in general the small peasant (especially if indebted) is no match for the cunning middlemen.

The economist's market is, therefore, not a place, but a mechanism. By 'clearing the market' is meant that at the price attained no seller wishes to sell more, and no buyer wishes to buy more. Demand equals supply at this price. Were the price higher, some would-be sellers would find no purchasers; were it lower, some would-be purchasers would be unable to buy all they would like.

More often markets are continuous over time, during which there is a (more or less) regular flow of goods into the market, and a (more or less) steady stream of customers. In such cases prices are affected by the amounts actually offered for sale and 'demanded' at various prices, and also by anticipations as to future offers to buy and sell; whilst offers to buy and sell over a period are influenced by the prevailing and anticipated prices. If prices rise, more tend to be produced and offered for sale in the future, and higher cost producers tend to enter the market. If prices rise final consumers tend to alter their pattern of consumption, and hence to buy more of those goods whose prices have risen relatively less, and less than before of those whose prices have risen relatively more. If prices fall, the opposite tendencies will be at work. But in continuous markets which determine prices over a period, there is only a trend towards an equilibrium price, and equilibrium is never actually attained because normally conditions of demand and supply can, and do, change significantly. Nevertheless, such a market is price determining, and the system works well, in the sense that it continually, and quickly, adjusts output to the changing demands of consumers; prices to the changing costs of production, and so on. If all men were equal—in personal endowments and opportunities—the price system would indeed be the ideal method of organizing and controlling economic life. But this is not so, with the result that efforts are continually being made—as a second best—to discover means of adjusting and modifying the price system in order to achieve the ends visualized by various ideologies.

To demonstrate how the price system works—which is essential if policies are to be devised to modify its operations—the economist starts, as already explained, with simple demand and supply analysis, based on simple assumptions about human behaviour, and proceeds thereafter to deal with a variety of more complicated cases, and to render his assumption more realistic. All this will be explained and illustrated in Part II. The point to notice here is that even when it is impossible to deduce exactly what price will be established, what will be the precise results on demand and supply of changes over a period, or of modifications in the assumptions, these analyses can show what are the main factors and forces that must be taken into account. This applies to both the analysis of actual situations and the devising of policies. The direction (if not the extent) of trends, and (sometimes) the limits within which prices, demand and supply will react in response to initial changes, can also be discerned.

It remains to be explained how it is that price-determining markets can operate without actual physical market-places. For such markets to be established it is necessary that there should be close contact—for instance, by means of 'phone, telegraph or cable—between buyers and sellers, with adequate provision for almost instantaneous dissemination of information about the terms of deals concluded. Such modern methods of communication and of the dissemination of information are, of course, to be found in the modern sectors of some undeveloped countries, as well as in advanced countries. This type of market exists on a national scale for many products, and on a world-wide scale for gradable commodities such as wheat, cotton and other primary goods which are produced in many regions and are in almost world-wide demand. A world market also exists for stocks and shares of established reputation.

As has already been indicated, price-determining markets do not prevail in the traditional sectors of some undeveloped countries, so that analyses of how the price system works are, for that sector, of limited relevance. In particular, it cannot be assumed that governmental policies will elicit the desired responses in the traditional sector. Many examples of this difference, and of the problems that it poses, will be given in subsequent chapters. This fact provides part of the explanation of why, in India and Pakistan, the so-called 'multiplier' has worked so feebly. But this only underlines the conclusion, reached earlier, that much work remains to be done before a better understanding can be gained of the working of undeveloped economies, and of how economic principles can be used to assist in the choice of policies appropriate, under the particular circumstances, to secure desired results.

This discussion has attempted to give a brief and rough and ready idea of the meaning of 'economics', the scope of the subject, and of the various methods adopted by economists, at different levels of abstraction and difficulty. The following chapters only attempt to deal with basic economic concepts and methods. They cover only a small part of the whole field, and aim to present merely an introduction to the subject. Their object is to interest students of undeveloped countries in economics as such, and at the same time to show how it is related to some of the outstanding economic problems of their own countries. In particular it is hoped to stimulate such readers to pursue the subject further, to remove some of their difficulties resulting from the fact that the subject has been, so far, mainly developed from the point of view of advanced economics, and to help them to undertake further studies which will render the application of economic principles to undeveloped countries more fruitful than it has been in the past.

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Part II

ANALYSIS OF THE BEHAVIOUR OF INDIVIDUAL CONSUMERS AND PRODUCERS ('MICRO-ECONOMICS')

CHAPTER III

DEMAND, SUPPLY AND EXCHANGE

A. Introduction
B. Demand and Supply in the Short-run
C. Market Price in the Short-run
D. Demand, Supply and Price in the Longer-run

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A. INTRODUCTION

The functions of a freely working price mechanism in supplying consumers with goods and services in accordance with their priorities (as limited by effective demand), guiding producers in their choice of output, and helping to allocate investment resources in the most efficient manner have already been explained in Chapter II.

Before proceeding to analyse in some detail how the price mechanism works, it must be made clear that the price mechanism, working under free competition, is not invariably the most effective method of attaining given economic, let alone social, ends. Complete *laissez faire* (or non-interference) has never prevailed in any society, and would be advocated by no one. Important economic and social services of various types (e.g. education, certain public utilities, defence and police-services) can only be satisfactorily undertaken by society itself. They must be paid for by taxes or levies of some description, and this involves 'interference'. Hence some limitations on the free working of the economic mechanism are always found in actual societies, and the difference between one economy and another in this respect is largely one of degree. Nevertheless, the price mechanism plays a fundamental role in all economies that are not completely planned, and must be understood even if only in order to judge what are likely to be the effects and efficiency of policies which restrict or interfere with the price mechanism.

Partial planning, as practised, for instance, under the Indian and Pakistani Five-Year Plans, entails special types of 'interference' with the object of promoting particular economic and social ends. But it also is by no means cut off from the price mechanism—even in the public sector—and itself utilizes the price mechanism to help attain its objectives. The special objectives, advantages and disadvantages of such partial planning will be the subject of Chapters XI and XII.

The object of the present chapter is to undertake a preliminary analysis of demand, supply and price-determination under competitive conditions, first in the short-run, and then in the longer-run. The longer the period under consideration, the more likely—indeed certain—it is that there will be changes in the nature and extent of both demand and supply, and in the prevailing price.

By the 'short-run' is meant a period (e.g. a day or between particular hours in some particular day), that Marshall called a 'market period', that is too short for significant changes to occur on the supply side. More explicitly, the short-run is that in which no radical changes in production techniques can be undertaken. This does not mean that the total supply is necessarily sold, because some suppliers may withhold part (or the whole) of their produce if market price falls below a certain level. On the demand side it is assumed that purchasers' scales of preference are also substantially fixed, although minor changes—possibly induced by unexpected climatic or other variations (for instance, increased preference for salads or cold drinks in exceptionally hot weather)—may occur. In such a case the variations in demand may be considered as implicit in the demand schedule itself. The essential concept is that of a given supply on the market.

The analysis of demand, supply and price in the short-run, provided certain conditions (to be enumerated later) are fulfilled, can therefore be more formal and can lead to more definite conclusions about price-determination than an analysis of demand, supply and price in the longer-run (e.g. a month, a season, a year or even longer). Indeed, in the short-run (if certain conditions are fulfilled) market 'equilibrium' (or stable balance) can be attained, whereas in the longer-run there can never be more than a tendency towards equilibrium. In actuality a 'tendency towards equilibrium' usually entails a winding or twisting path leading first in one direction, and then in another, the final goal remaining on the ever-receding horizon.

Hence, it is necessary to distinguish clearly between short-run and longer-run analysis.

Certain assumptions must be made initially, in order that perfect competition can be said to prevail. Some of these can and will be discarded in relation to the longer-term analysis.

These assumptions are as follows:

(*a*) That the majority of those who buy or sell act consistently (i.e. in accordance with their own interests). This assumption will be retained throughout.

(*b*) That the goods in the 'market' in the economists' sense are homogeneous (so that there is no preference for particular units). Most manufactured goods are not homogeneous, but possess characteristics which differentiate them from the products of competing firms.

'Branded' or trade-marked goods are obvious examples. For them competition is imperfect (see Chapters IV and VI).

(*c*) That the terms on which bargains are made are known. (If prevailing prices are not known, a 'market price' can hardly be established. The 'market' becomes, in effect, a 'bazaar'.) This condition may not be fulfilled in the traditional sector.

(*d*) That there is no 'interference' (from the government or other source) with prices (e.g. through taxation) or the conditions of demand (e.g. through rationing) or supply (e.g. through quotas or other quantitative methods of control). What happens when allowance has to be made for 'interference' is discussed in later chapters.

(*e*) That transport costs are ignored, at least in the sense that for short-term analysis it is assumed that sellers of goods subject to relatively high transport costs will either not put their products on the market under consideration at all, or that the sellers are in a position to absorb the extra cost owing to some counterbalancing advantage (such as exceptionally favourable conditions of production or exceptionally low labour costs).

(*f*) That the number of purchasers and sellers is large, so that (*i*) the quantity offered for sale by any one seller is insignificant in relation to the total supply, so that he cannot affect the price; i.e. each seller accepts the price as given; and (*ii*) the individual purchaser cannot affect the price, so that for him the price is given.

If these conditions are fulfilled competition can be said to be perfect.

Chapter IV will first deal with some aspects of demand and supply, neglected in the present chapter, after which it will be shown how the analysis undertaken in the present chapter can be modified if some of the assumptions listed above are removed. This will illustrate how the analysis can be made applicable to a variety of circumstances.

Chapter V extends the analysis to the factors of production and their prices (e.g. wages or salaries as the price of labour; interest as the price of capital loans; rent as the price of land) whilst Chapter VI will deal with firms, as contrasted with individual or family producers, and their special problems.

B. DEMAND AND SUPPLY IN THE SHORT-RUN

'Demand' for a good (or service) is not the same thing as desire, or even need, for it. Only when desire is backed by the power and decision to purchase at a given price does demand arise. Hence to refer to demand (in the economic sense) without reference to price is meaningless. The demand for a particular good is the amount that will be purchased at a given price per unit at a given time or within a given period.

It is customary to illustrate the normal features of a short-run demand by means of an (arbitrarily constructed) 'demand schedule'. In Table I, column I gives a series of prices per unit; column II gives the number of units which would be bought at each price (i.e. the 'demand schedule'); column III gives the consumers' total outlay at each price (i.e. I x II); column IV gives the elasticity of demand (to be explained below) over a series of prices; and column V gives the

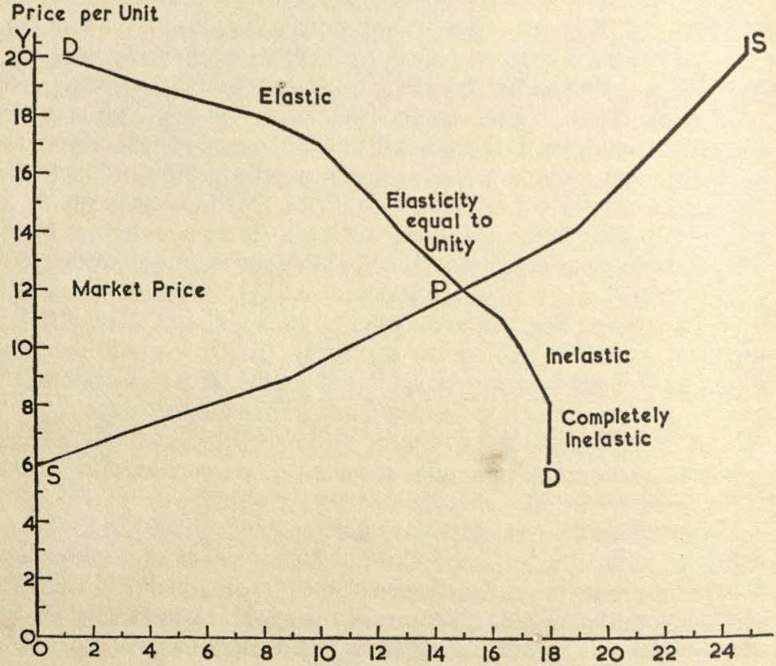

DIAGRAM I

'supply schedule' (i.e. the number of units offered for sale at each price per unit). Diagram I shows the demand and supply schedules in the form of curves on a graph.

Table I

Short-term Demand and Supply Schedules

Price per unit In 'annas'	*Demand* (units bought at each price)	*Consumers' Outlay* (at each price) (I x II)	*Elasticity of demand*	*Supply* (units offered at each price)
I	II	III	IV	V
20	1	20	*Elasticity greater than* 1. 91% change in demand (over 5 items) ÷ 20% change in price = 4·5.	25
19	4	76		24
18	8	144		23
17	10	170		22
16	11	176		21
15	12	180	*Elasticity equal* to 1. 27% change in demand ÷ 27% change in price = 1 (unity).	20
14	12·8	180*		19
13	13·9	180*		17
12 Market Price	15	180		15
11	16·4	180*		13
10	17	170	*Elasticity less than* 1. 5·5% change in demand ÷ 40% change in price = ·13.	11
9	17·5	157·5		9
8	18	144		6
7	18	126		3
6	18	108		0

N.B. Both percentages must, of course, be calculated on the same basis, that is, either from the lower or the higher figure. It should be noted that this percentage method is a rather crude one which is accurate only for small changes in quantity. For large changes, the methods of differential calculus must be used.

* Approximately.

On the graph, prices (as given in Table I) are marked on the vertical axis OY and quantities (i.e. units of the relevant commodity) on the horizontal axis OX. Reading from the demand schedule (Table I column II) the amount demanded at each price has been plotted on the graph, and the points joined to form a demand curve. The supply curve has been similarly constructed from Table I, column V.

A demand (or supply) curve may be of any shape; concave, convex, a straight line, a smooth curve, or a 'squiggle'.[1] Our (imaginary) demand curve, although extremely unrealistic, is designed to illustrate certain features common to most demand curves, together with certain concepts which help to explain the shapes which demand curves may assume. A realistic example has not been chosen mainly because it is impossible to say what demand (or supply) would be at a whole series of prices, some of which would necessarily be at some distance from the prevailing market price. No one would presume to suggest to what extent demand (or supply) would be affected if (for instance) prices were double what they actually are. But past experience and a good knowledge of the conditions underlying the forces of demand and supply in a particular market such as the state of the crops, the number and attitudes of purchasers, and the stocks in the hands of the sellers—might well provide good guidance as to how demand (or supply) would be likely to react if (for any reason) a small rise or fall in price should occur. But if our demand curve were to be limited to (say) only three points on the graph, and thus be more realistic, it would fail to illustrate a number of the concepts which it is convenient to define and discuss here.

The first feature of the demand schedule to be noted is that as price falls, the number of units demanded normally tends to rise. On the graph this is shown by the demand curve sloping towards the right. But after price has fallen to a certain level, this tendency may cease, so that no more units would be bought at still lower prices. On the demand schedule and on the graph it is shown that in this particular illustration demand remains at eighteen units whether the price is 8, 7 or 6 annas.

The supply schedule and curve show opposite tendencies. At higher prices sellers wish to sell more: supply increases. At lower prices supply tends to fall. Here it is assumed that sellers prefer to retain some of their goods, rather than sell at very low prices. The case of a fixed stock of goods which cannot be augmented—in the short-run—and all of which would be sold at a given price or any still higher price is shown on the graph, where the whole stock (twenty-five units) is offered for sale at a price of 20 annas, or at any higher price.

To explain how and why this may be requires a careful examination of the motives and actions of the buyers (or sellers, as the case may be). In the first place a rather formal explanation will be given. Subsequently the circumstances under which a demand schedule and curve similar to those illustrated in Table I and Diagram I may come to exist will be discussed in more realistic terms.

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[1] F. C. Benham's name for it! See his *Economics*, 6th Edition, 1960, p. 179. He adds that a realistic curve is likely to be a squiggle.

In an exchange economy practising specialization (or division of labour) an individual (or family) secures the necessities (and luxuries—if they can be afforded) of life by selling his services, or what he produces, in return for money with which he purchases that selection (or 'basket') of goods which he thinks will best satisfy his needs. A purchaser has to decide both what goods to buy, and how much of each, if his 'basket' of goods is to be the optimum procurable at the prevailing prices. This he does in accordance with his 'scale of preferences', that is, the order of priority given by a purchaser to the particular goods, and the quantity of each, that he wants to buy, in relation to his purchasing power and prevailing prices. A purchaser must have at least an implicit and consistent scale of preferences, if he is to succeed in laying out his money to good advantage. Otherwise when his last anna has been spent, he will wish he had bought more of this, or less of that, or some commodity rather than another.

What this comes to is that a purchaser exercises choice at the margin, weighing up the satisfaction (or 'marginal utility') to be derived from one more anna's worth of (let us say) rice, against one more anna's worth of (say) milk. If his judgment is good, the final result will be that the last anna spent on a unit of any one commodity will provide satisfaction (or 'marginal utility') equal to that spent on every other commodity. Thus the marginal utility of the last anna's worth of rice will be equal to that of the last anna's worth of milk. Incidentally, the difference between the total and the marginal utility of a commodity should be noted. For instance, in completing his 'basket' of goods the purchaser may spend one more anna on more rice, or spend one more anna on a child's toy. The marginal utility of the rice and the toy will then be equal, but the total utility of all the rice bought is much greater than that of the toy. A very poor man will not be able to buy a toy at all.

What happens if (for any reason) the price of rice falls, or is much less than expected? The total expenditure on rice (and not only on the last unit) which the purchaser had intended to make will now be less than expected, and the purchaser will be left with some money in hand. This can be spent on more rice, or on more of some other commodity, or saved, in accordance with the purchaser's scale of preferences. If he decides to save the money in hand, this represents his preference for expenditure at a later date rather than now. Provided that the market includes purchasers with different needs and tastes (i.e. scales of preference) some of them are likely to buy more rice, whilst others—in accordance with the principle of 'diminishing marginal utility'—will prefer to buy more of something else. The principle of diminishing marginal utility states that, normally, the more one has of any particular commodity, the less urgently one wants still more of it. In this case the marginal utility of rice has fallen, and hence the marginal utility of all other commodities, in relation to that of rice, has risen. This implies that, in order to secure equal utility at the margin, a shuffle in purchases has become necessary. More will then be spent on other things than rice, but also some more rice will be bought (according to the purchasers' scales of preferences). It is, then, the principle of diminishing marginal utility that explains why a demand curve not only slopes to the right (because demand is higher at lower prices) but also slopes downwards. Diagram I illustrates a case where after a certain price (8 annas) has been reached no more whatever is bought at still lower prices. The demand curve has become perfectly inelastic, i.e. a straight line falling downwards parallel with the Y axis. This simply means that no one in the market is now willing to buy more rice, however low the price may fall. In reality this need not happen. Demand might continue to increase with each fall in price.

It has now been explained why a demand curve normally slopes downwards to the right. But it is also necessary to enquire what determines the rate at which demand changes in response to a given change in price.

In economic terminology, the rate of change in demand in response to a (small) change in price is called the 'elasticity' of demand. It can be measured (as in Table I column IV) by the percentage change in demand between two prices, divided by the percentage change in price. When the change in demand is proportionately greater than that of price, demand is said to be 'elastic'; when the change in demand is exactly proportionate to the change in price, demand is said to be 'equal to unity'; when the change in demand is proportionately less than the change in price, demand is said to be 'inelastic'. Realistic examples will subsequently be given of the role played by the concept of elasticity, and of its importance for policy-making. Clearly it applies to both increases and decreases in price, and to supply schedules and curves as well as to demand schedules and curves. On the graph (Diagram I) changes in elasticity are shown by changes in the slope of the demand and supply curves.

Let us look at the demand schedule and curve more closely. Over the price series 20 to 16, at each lower price demand is substantially greater, and elasticity results in a figure greater than one (unity). Demand is elastic, and total expenditure (Table I column III) has increased. On the graph the demand curve slopes rather steeply to the right. Over the price series 15 to 11, at each lower price demand increases, but the rate of increase is less than before. Elasticity is equal to unity, so that total expenditure remains unchanged (at 180). The curve slopes less steeply to the right. Finally, over the price series 10 to 6, elasticity is less than unity, the curve descends sharply, and eventually becomes a straight line parallel to the OY axis: that is, between the price series 8 to 6, demand is completely inelastic, no more being demanded at lower prices. Similarly the supply curve above a price of 20 annas is completely inelastic, presumably because sellers have run out of stock: there is no more to be supplied. Throughout the rest of the supply schedule less is offered for sale at each lower price. At a price of 6 annas per unit, sellers would be unwilling to part with any units of their commodity, possibly hoping to get a better price at another time or in another market.

So far, 'elasticity' has been discussed in terms of the response (of demand or supply) to price changes, but 'elasticity' can also refer to the response to income changes. Hence there can be either 'price elasticity' or 'income elasticity' (of demand).

The effects of the degree of elasticity of demand or supply in response to change in prices and/or incomes are of great importance to, for instance, producers, consumers and the government's tax and other policies. Henry Ford, for instance, during the First World War, anticipated that a low price for cars would attract a mass market, and his low-priced standardized car brought in a fortune. Many studies measuring elasticities of demand have, therefore, been made. Here all that can be done is to call attention to some general contrasts in this field between advanced and poor countries.

A 'necessity' may be defined, in terms of our analysis, as a good (or service) for which the elasticity of demand is below unity; i.e. a fall (rise) in price, or income, will result in a less than proportionate increase (rise) in demand.

In advanced countries the bulk of the population can afford to satisfy at least their basic physical and some social and psychological needs. They can normally[1] satisfy their minimum needs for food, house-room, fuel, household equipment and some entertainment. Neither a fall nor a rise in the price of such goods (called 'necessities' or 'conventional necessities') leads to much, if any, change in the total amount of each good purchased—except entertainment. At most, in times of recession, or if prices rise, there may be some replacement of superior by inferior quality goods. Hence the price and income elasticity of demand for the types of goods mentioned above is less than unity.

On the other hand in advanced countries, if prices fall or incomes rise, demand increases, maybe spectacularly, for such things as motor cars, TV sets, more expensive foods, clothing and houses, and for entertainment. The elasticity of demand is greater than unity for 'luxuries'.

In poor countries the lists of goods for which the price and income elasticity of demand is less or greater than unity, respectively, is very different. Nevertheless, the definition given above of 'necessities' and 'luxuries' still holds. The fact is that many things considered as 'necessities' in advanced countries, are 'luxuries' in poor countries.

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[1] That is, for instance, apart from people living in depressed areas suffering from high unemployment.

The modern sectors of developing countries such as India and Palestine are, it is true, in much the same position in this respect as advanced countries. But the modern sectors embrace, perhaps, only 5–6 per cent of the populations.

In many rural areas the list of goods (and services) for which the elasticity of demand is less than unity (i.e. 'necessities')—although there are great variations between areas and classes—may include little more than a minimum of the staple cereal of the region, some condiments, a yard or two of coarse cloth, and a blanket. Dwellings are self-built from locally-available material, cattle-dung[1] is used for fuel (thus starving the soil) and vegetables are self-grown. Millions of peasants and urban slum-dwellers are so poor that they can seldom secure sufficient of the goods in this list to satisfy not only their 'wants' but also what is necessary for health and efficiency.[2] The result is that if prices fall these items still head their scales of preference, so that more of them are bought than before. But (in the absence of higher incomes) their total expenditure thereon cannot rise, as they have no more to spend. Moreover, so long as the 'list' includes more than one item, the increased power to purchase (owing to a fall in the price of a particular good) will be distributed over more than one item, so that the elasticity of demand for the new cheaper good must be less than unity.

If incomes rise the argument differs somewhat, but the conclusion is similar. In practice the incomes of the rural population seldom, if ever, rise unless, or until, prices have risen. But even if incomes did rise before prices (in the very short-run) the increased demand for foodstuffs would, in view of the inelasticity of supply of agricultural produce, drive up the price of foodstuffs, and the income elasticity of demand would be less than unity.

If prices rise, or incomes fall, amongst the masses, the latter must eat less whilst rags must suffice for clothing but—in view of the high propensity to consume of these classes—the downward elasticity of demand for any one good would be less than unity.

Amongst the less poverty-stricken, who can afford to satisfy their primary wants and needs, the argument is similar in principle as for advanced countries, but the items added to such people's expenditure lists, if prices fell or incomes rose, would be very different. Bicycles and/or bus fares, for instances, might be added, so that for them and other goods (and services) the elasticity of demand would be greater than unity.

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[1] An agriculturist requires bullocks for ploughing, and their periodic purchase is also a 'necessity'.

[2] The F.A.O.'s *Third World Survey* concluded that about half the world's population is either undernourished or malnourished, or both (*The Times*, July 29, 1963).

From the national point of view it can be concluded that in poor countries any general fall in prices (of relevant goods) or improvement in incomes will be likely to manifest itself in an increased demand for cereals, or, at least, foodstuffs in general, and hence reinforces the argument in favour of the primary need to increase food production.

So far as supply is concerned, it is often said that products which can be easily and quickly reproduced tend to be in elastic supply; that where the supply of products (such as tea or rubber) cannot be greatly augmented for a number of years, then supply tends to be inelastic, and that the supply of seasonal crops tends to be inelastic over a year (or even more).

The low elasticity of supply of agricultural products should not, however, be attributed to lack of responsiveness by cultivators who, however willing to respond, cannot do so within the 'technical production period' (i.e. the period necessary for 'sowing and harvesting' any particular crop). The main reasons for the low elasticity of supply of agricultural products are as follows:

(i) The relatively high proportion of overhead to current costs (for instance of irrigation and plough cattle compared with the cost of family labour).

(ii) The relative ease with which some current costs (e.g. the farmer's own net income) can be reduced, which means that there is less pressure than in some occupations to cover costs by increasing output, or to reduce output (when prices fall).

(iii) The lack of organization (e.g. through commodity agreements) for artificial supply restriction in periods of low prices.

(iv) The immobility out of agriculture, so that when earnings fall farmers cannot take up another occupation.

The low inelasticity of supply is one reason why the prices of agricultural products tend to fluctuate more widely than those of manufactures, of which the supply can be augmented relatively quickly, or the supply can be checked by dismissing workers (thus saving their wages), and shutting down part of the plant.

The other reason for wide fluctuations in agricultural prices is that on the world market demand is relatively inelastic for most agricultural products.

The changes in demand over the price series in Table I may be explained in more realistic terms as follows, although it must not be forgotten that the situation described is purely imaginary, so that the same 'facts' could be interpreted differently.

At a price of 20 annas per unit, only one would-be purchaser might be able to afford to buy at all. If, for instance, the commodity was rice, the other customers might buy millet instead of rice. At lower prices more and more buyers would enter the market, and at each lower price some buyers would purchase more units than previously. Moreover, the marginal utility of (say) rice still being high, buyers would be willing to spend a larger total sum on rice at each lower price, up to a total consumers' outlay of 180 annas (see Table I). At a price of 10 annas, however, the marginal utility of rice to some buyers would have begun to fall, so that they would prefer to spend their 'gain' from the lower price of rice on something else. Hence, although on the whole the demand for rice would still rise at still lower prices, consumers' total outlay would begin to fall. Finally, at a price of 8 annas (and less) saturation point (at 18 units) would be reached, no more being bought even if price continued to fall.

Two warnings may be repeated here. First that in reality demand and supply schedules could never be constructed over a long series of prices as in Table I, which is, therefore an impossible as well as an imaginary illustration. Second, that each individual included in the whole group of buyers acts according to his own circumstances (purchasing power and scale of preferences), and comes on to the market, buys more, or ceases to buy more at differing points of price series. Hence the demand schedule merely shows the net result of a large number of individual decisions. Similar explanations, with appropriate modifications, also apply to the supply schedule and curve. Supply will be discussed further in the forthcoming account of the more fundamental longer-term factors underlying demand, supply and price, and more fully still in Chapter VI on the 'Economic problems of businesses'. But before taking up the question of the more fundamental factors affecting demand, supply and price, something must be said about price determination in the short-run.

C. MARKET PRICE IN THE SHORT-RUN

In order that transactions can take place at all, it is obvious that there must be some price at which both customers will buy and sellers are prepared to part with their goods. It is also clear that no one activated by self-interest (or so-called 'rational' motives) will knowingly make a deal on less favourable terms than those secured by other traders. Hence, on the assumptions necessary for the formation of a freely competitive market (as set forth on p. 49), only one price can prevail in the same (short-run) market. This price (by assumption an 'equilibrium' price) must satisfy the condition that no trader in the market wants to buy more or to sell more at the market price. Otherwise bargaining—or other attempts to buy or sell—will not cease. This condition will be satisfied when the amount demanded at the given price (12 annas in Table I) is equal to the amount offered for sale at this price. If price were less than 12 annas some customers would be prepared to buy more than 15 units, but could find no sellers (at 11 annas customers would want to buy 16·4 units, but sellers would only part with 13 units). If price were more than 12 annas, some sellers would offer more than 15 units, but would be unable to find buyers (at 13 annas sellers would offer 17 units, but customers would only buy 13·9 units). Hence at any price, whether below or above 12 annas, there would be either unsatisfied customers, or unsatisfied sellers. At 12 annas, however, as shown in Table I and on Diagram I (where the demand and supply curves cross each other at this price) there is no one offering to buy more, or to sell more, at the prevailing market price.

It has been pointed out in Chapter II that in advanced countries and in the modern sectors of economies such as India and Pakistan, there are a number of 'markets' in which price is determined in the short-run along the lines just analysed theoretically. But in the unorganized sectors of such countries even where goods are sold at markets held, perhaps daily or weekly, prices are not always or necessarily determined along freely competitive lines. There is not always one price even for homogeneous goods in the same market. An equilibrium price may never be attained. For instance, a description of what happens in certain East Punjab markets points out that price is not determined even on the same day by competition between all the buyers and sellers. On the contrary, a series of sales takes place, first in front of the go-down of one trader, where certain sellers dump their goods, later in front of some other trader's go-down where other sellers bring their products. And so on. In addition the prices at which sales take place are not made public, whilst there may be ties (arising mainly from indebtedness) between some buyers and sellers, resulting in transactions at prices largely unaffected by demand and supply conditions. In such cases it is impossible to generalize about market price.

In the longer-run, where the lapse of time results in changes in the conditions of demand and supply (that is, new demand and supply schedules take the place of the original ones), even in advanced countries (and the modern sectors of underdeveloped economies) demand and supply analysis becomes much more complicated. What has to be analysed is no longer one demand schedule, one supply schedule, and the resultant market price, but a whole series of demand and supply schedules and price fluctuations corresponding with the changing conditions, as also changing anticipations as to how price is likely to change in the future. In this context all the factors affecting, and likely to affect, demand supply and price over a given period—e.g. a season or a year, have to be brought into the picture. Nevertheless, even here, the analysis given above of short-run competitive marketing will be found to provide valuable (though incomplete) guidance to what is likely to happen in the longer-run.

D. DEMAND, SUPPLY AND PRICE IN THE LONGER-RUN

In the longer-run the determination of the price of a particular commodity can no longer be analysed in isolation. It is affected by the nature of, and all that is happening in, the rest of the economy (and even in other parts of the world). From a realistic point of view any change in any part of an economy sets up reactions which spread outwards from where the change originated until the force of the original impetus is spent, and a tendency towards a new equilibrium comes into being. In the meantime additional changes will have originated, and will play their part in influencing long-term trends.

It must be realized that an 'initial change' in market conditions can only come from a change in either demand, or supply (or both). As Benham says,[1] 'a change in price does not come about by itself. It comes about because some sellers are prepared to accept less, or some buyers to pay more'. (Or vice versa: some sellers insist on a higher price, or some buyers will give less than before.) The concept of 'substitutability' is important here. For instance, a customer, at a particular moment, may have rice at the top of his scale of preferences, and is prepared to buy another unit at the prevailing price. If, however, there has been a bumper harvest of wheat, and its price falls substantially, the customer may consider wheat a satisfactory and now cheaper substitute for rice. He therefore buys wheat rather than more rice. In other words, the marginal utility of rice at a given price depends upon the prices of possible substitutes. Rice and wheat are clearly possible substitutes, as they serve similar needs. But it may well happen that another good, serving a quite different end, can act as a substitute. For instance, a customer who intended buying more rice may unexpectedly find attractive bangles offered for sale at prices below normal, and may then decide to buy some of them instead of more rice.

It is, therefore, impossible to classify goods—or services—into non-competing groups. Edibility might be one basis for classification but non-edibility does not prevent competition between rice and bangles. Even services can compete with edible goods. Education is not a direct substitute for rice, as wheat or millet may be, but indirectly it may prove competitive. A new bus service may make it possible for a villager to send his son to school in a larger village that has a school. Bus fares now enter the villager's 'basket' of desired purchases. Cases are not rare of parents who desire education for their children, and who are prepared (should a new bus service make this possible) to cut down their marginal expenditure upon food and other so-called necessities, in order to be able to pay bus fares. Education can compete with rice; thus in the final analysis every marketable commodity or service competes with every other marketable commodity or service, not of course in the scale of priorities of every individual, but in that of some individuals and groups of individuals. Hence in all exchange economies, where necessarily some degree of division of labour occurs, every sector of the economy is related (more or less closely) to every other, at least at the margin. Any change in demand, supply or price influences relative marginal utilities and the elasticities of demand and supply. In very general terms, then, the fundamental factors underlying demand and supply in any economy are the essential quantitative and other economic features of that economy. These include the size and make-up of the population, the quantity and quality of the labour force, the level of incomes and their distribution, the tastes, customs and traditions of the people, the capital equipment and available resources (whether domestically produced or imported), and the costs of production of various products. On the supply side changes follow not only from the incentives provided by rising prices, but also from reductions in costs of production due to enterprise, the introduction of innovations, improvements in techniques, inventions, etc. and the creation of markets for new goods (e.g. radios or televisions). In the case of both demand and supply the original stimulus to change may come from either internal or external forces. In developing economies, up to the present, the greatest stimuli have come from the adoption of technical and other innovations from abroad, which in their turn are leading to the adaptation of Western devices to the needs of more backward countries. This may be compared with the adoption of 'Western' economic analysis and the present need for its adaptation to the problems of undeveloped areas, at least so far as the unorganized sector is concerned. But even for the largely self-sufficing unorganized and poverty-stricken sectors orthodox analysis can explain much. It is chiefly in the sphere of policy-making that due weight has to be given to the different institutional and psychological features of particular developing economies.

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[1] *Economics*, 6th Edition, 1960, p. 254.

For instance, the demand of an Indian or Pakistani peasant (or peasant family) depends fundamentally upon the following factors: (a) the amount and value of his property, services afforded to others, and products. The larger his marketable surplus, the closer his relations with and independence upon the rest of the economy: (b) his scale of preferences: i.e. the relative strength that he attributes to his need for this or that, and for varying quantities of this or that, including his demand for money income and (where relevant) his desire to save —whether in the form of hoarding or investment. His scale of preferences—for instance his insistence upon a relatively high rate of ceremonial expenditure, and his refusal (on occasion) to purchase or even make use of objectively equally satisfactory substitutes for his normal foodstuffs, should the latter become temporarily unavailable —may seem irrational to Western eyes, but constitute 'facts' which cannot be ignored; (c) the absolute and relative level of prices of the various goods and services which are currently bought and sold.

Orthodox Western economics is, for instance, capable of analysing and explaining (although actual measurement is impossible owing to lack of data) the probable economic influence on demand and relative prices of changes in the total and *per capita* availability of cereals in India and Pakistan, provided due attention is paid to what are called the 'propensities to consume' and 'income elasticities of demand' prevailing amongst different sections of the economy.

The 'propensity to consume' refers to the extent to which an increase in real income (i.e. money income after making allowance for the effects of price changes) induces an individual or a group of individuals, to save part (or all) of the additional income, if previously no saving had been made, or a larger proportion of total income, if previously there had been some saving. 'Income elasticity of demand' is a related concept, which however refers directly not to saving but to demand for goods (and services). 'Price' elasticity of demand has already been discussed at some length. 'Income' elasticity refers not to the proportionate change in demand resulting from a given change in price, but to the proportionate change in demand resulting from a given change in (real) income. In any economy the propensities to consume and income elasticities of demand necessarily depend upon the levels of income of various sections of the population, and will be very different for poor and backward countries than for advanced countries. Any estimate of the future cereal needs of India and Pakistan will therefore have to take into consideration not only the rate of population growth and age-distribution of the population, but also to what extent the hoped for rise in average income will, or will not, lead to an increased *per capita* demand for consumption goods in general (as contrasted with saving), and to an increased *per capita* demand for cereals in particular. The answer to such a question might show very different tendencies for countries such as India and Pakistan than for the UK.

It must be admitted that in so far as the poorest rural classes in most undeveloped countries are largely self-supporting (on a family basis) and only rely upon exchange to a marginal extent, the price mechanism, also, has only a marginal influence on members of these classes. This can largely be attributed to the limited practice of specialization (or division of labour), and to the unchanging nature of such specialization as exists.

In an exchange economy, specialization tends to become cumulative, and thereby—as a matter of hard fact—tends to increase cumulatively the output per head of the working force and also of the community as a whole. Division of labour tends to increase skill, saves implements, motive power and machinery (that is, capital equipment in general, because fewer individuals have to be thus equipped in relation to their total output), saves time (in passing from one job to another), lessens the cost of transport (due to greater concentration of production) and reduces the cost of marketing (e.g. by providing bulk consignments). It is true that, owing to the strength of the caste (or class) family systems in India and Pakistan, more specialization exists even in the poorest regions than in many other underdeveloped countries. But the type of specialization practised has involved few of the advantages listed above, because it has taken place as between broad economic sectors, e.g. agriculture as compared with the handicrafts, porterage, water-carrying, scavenging, etc. rather than as between the different processes within any productive undertaking. All those engaged in a particular form of production tend to undertake all the processes involved. This has not enabled individuals to choose or concentrate upon industries, processes or particular tasks for which they have special ability or inclination. Each individual has tended to follow his caste or family 'calling' and to perform all the processes to produce a given article (except for the separation between spinning and weaving). Traditional methods and techniques of cultivation and rural industries have thus continued unchanged. Hence, instead of leading to the various economies (of skill, time, etc.) mentioned above, such division of labour has mainly obstructed labour mobility and tended to produce the rigidities partly responsible for the spread of under-employment. In particular there seems to have been at work an indisposition (whatever the explanation may be) to combine capital with labour. This may account for the prolonged fight to maintain handiwork, as contrasted with the relatively short, if bitter decline of the handicrafts during the industrial revolution in England. The net result has been little or no change in output per head, real income per head, or size of surplus for expenditure on the products of others.

It is true that marvellous skill has been shown by workers engaged in the artistic indigenous industries, such as carvers in wood, or ivory, metal working, and the weaving of high quality cloths and sarees, but such 'quality' products have been (and still are) produced only in particular centres (for instance, in the past, around royal courts), whilst even so the techniques employed seem to have remained unchanged over centuries.

It may be that this different type of specialization amounts to neglect of the principle of 'comparative costs' in the unorganized sectors of undeveloped countries. This principle is often discussed only in relation to international trade.[1] In fact it is as important for domestic exchange as for foreign trade. The principle points out that, as a matter of fact (not only of theory!), exchange (or trade) more often than not is based not on any absolute advantage possessed by those who specialize in the production of a particular good, which they exchange for the products of others, but on a lower comparative (rather than absolute) cost in their own line, as contrasted with their relative capacity in other lines of production. An example may make this clear. Imagine three Indian brothers, one of whom has superior abilities in every way to the other two, whose abilities are equal. In good time before the introduction of land reforms, the brothers partitioned their ancestral land. The most able brother, being a more efficient farmer, had an absolute advantage in terms of costs (whether measured in terms of labour or money) over both the other brothers. He found, however, that he obtained the greatest gain if he specialized in dairy farming, selling his produce to his brothers (and to others) and buying their cereals, vegetables, eggs, etc. in return. His brothers, finding they gained more (measured in labour or money saved) by specializing in the cultivation of cereals, vegetables, eggs, etc. gave up producing dairy products completely, and secured milk, butter etc. from the first brother in exchange for some of their cereals and so on. Eventually each of the two 'similar' brothers found it to his advantage to specialize—the one in cereal cultivation, and the other in the production of eggs, fruit and vegetables—and to exchange his products with those of his 'similar' brother.

Hence exchange between the most able brother and the others took place on the basis of comparative, not absolute costs, the ablest brother exchanged his dairy products for cereals, etc. in the production of which he had an absolute cost advantage; the other brothers provided the ablest brother with products in the production of which they had an absolute cost disadvantage. The two 'similar' brothers found it worthwhile to specialize and exchange, although neither had an absolute cost advantage in the production of the goods they exchanged. All three brothers produced more efficiently because they specialized, and specialization by the ablest brother led eventually to specialization by all three.

It has now been shown that the analysis of demand, supply and price over time cannot lead, as can short-term analysis, to the definite discernment of market price. It is no longer suitable to construct demand and supply schedules and curves, such as are given in Table I and Diagram I. If for any reason price changes, this can only be due to changes in the conditions of demand and supply, and such changes necessitate the construction of new demand or supply schedules (or both). It would be quite incorrect to suggest that, if price fell over time from the market price of 12 annas (shown in Table I) to (say) 8 annas, demand would then be 18 units, and supply 6 units. For then the fact that price had changed in itself indicates that the demand, or supply schedules (or both), had changed. A fall in price might be caused by the adoption of a new, cheaper method of production (e.g. mill production of certain sorts of cotton yarn, instead of hand-spun yarn). One could not then 'pass down' the original supply curve to find out how much would be produced at the new price. Or a fall in the price of a particular product might be due to the introduction of a new, more attractive, substitute, leading to a decline in demand, and the need for a new demand curve.[1]

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[1] See Chapter X.

Nevertheless, certain principles, or generalizations, can be enunciated. These have been called the 'laws of demand and supply'. They sound obvious, but it is extraordinary how often they are overlooked. The 'laws' state that if (for any reason) a change in the situation occurs the following tendencies may be expected:

(1) Demand is normally greater at lower prices, and supply at higher prices.

(2) An increase in demand tends to raise price and decrease supply: an increase in supply to reduce price and decrease demand.

(3) A decrease in demand tends to lower price and increase supply: a decrease in supply to raise price and decrease demand.

(4) Price tends towards that level at which the amount demanded is equal to the amount supplied.

These are merely generalizations, not immutable principles. Under certain circumstances counteracting forces may prevent the normal results from following. In the following chapter some illustrations of such counteracting forces will be given, and certain modifications in the analysis necessary for the sake of greater realism will be discussed.

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[1] See Chapter IV, Diagram II A and B, illustrating this point.

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CHAPTER IV

ADAPTATIONS AND APPLICATIONS OF DEMAND AND SUPPLY ANALYSIS

A. Modifications in Demand and Supply Analysis necessitated by Longer-run Considerations

B. Modifications Arising from the Abandonment of the Assumptions Necessary for Perfect Competition

C. Monopoly and Imperfect Competition
  (*i*) Monopoly and Price Determination
  (*ii*) Imperfect Competition

D. Modifications Arising from 'Intervention' by Public Authorities

Appendix: Profit Maximization under Monopoly

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A. MODIFICATIONS IN DEMAND AND SUPPLY ANALYSIS NECESSITATED BY LONGER-RUN CONSIDERATIONS

The chief distinctions between demand and supply in the short-run, as contrasted with the longer-run, have already been noted in Chapter III. It has also been concluded that in the short-run, on the assumption that perfect competition prevails, price is determinate; i.e. given the demand and supply schedules, it can be said what market price will be.[1]

On the other hand, in due course changes occur (from many causes) in the demand and supply schedules. The long-run, therefore, consists (rather like a cinematic film) of a whole series of 'short-runs' strung together, with, perhaps, infinitesimal changes between one short-run and the next. Hence, prices fluctuate and time is needed for these movements to work themselves out and eventuate in a tendency towards a new equilibrium. In practice new 'disturbances' occur before a new equilibrium is attained and often even before a tendency towards a new equilibrium can even be discerned. Price fluctuations continue, but although a new equilibrium is never attained, all the changes and price fluctuations that take place can be attributed to adjustments and reactions derived from the tendency towards equilibrium.

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[1] Price is also determinate under imperfect competition if the demand and supply schedules are known, unless the number of competitors is small (see pp. 72, 78).

It is useful to recognize three time-periods in relation to price-formation, although no sharp line can be drawn between them.[1]

First, there is short-run 'market' price, already analysed in Chapter III. Second, there is 'normal price' in a period of intermediate length, during which the rate of production and the demand schedule vary, but there is no change in fixed (i.e. 'real') capital, in the sense, for instance, of plant, machinery, and large equipment. Third, there is long-run 'normal price', i.e. the price of a commodity or product during a period in which the rate and method of production are completely variable, because it is long enough for fixed capital to be augmented or replaced.

During the intermediate and long-run periods price is not determined in a 'market', but as the results of continuous or periodic bids and offers by purchasers and suppliers, and the contracts resulting therefrom. Demand schedules can change, and price is not determinate. Nevertheless, careful study of the changing circumstances can reveal what are the important factors at work. Skilled and experienced traders can often (in the absence of unforseeable events) anticipate price trends.

At this point it is worthwhile to note a convention adopted by economists whereby it is said that 'expansion' or 'contraction' occurs when the same demand curve is cut by a new supply curve (or the

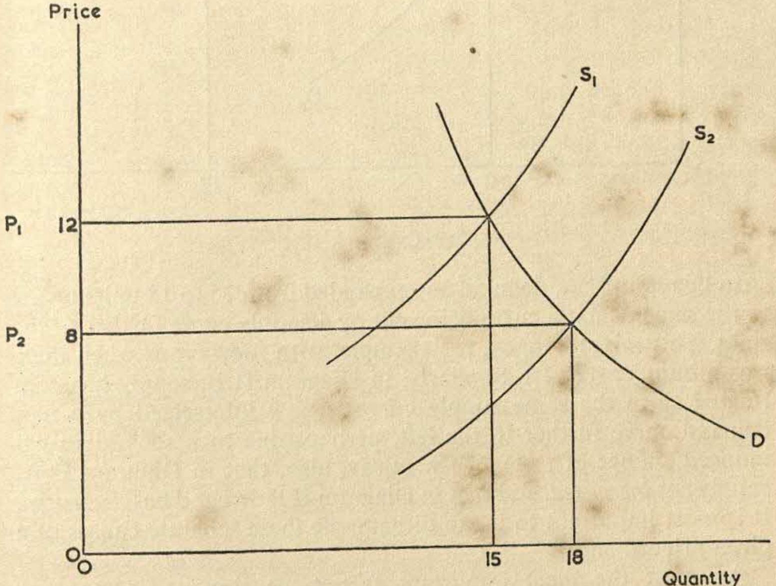

DIAGRAM II A

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[1] See Alfred Marshall, *Principles of Economics*, Book V, Chapter V.

same supply curve is cut by a new demand curve). When, however, a demand (or supply) curve itself shifts, then demand (or supply) is said to have increased or decreased.

The important distinction between 'expansion and contraction', as contrasted with 'increase and decrease', is illustrated in Diagrams II A and B.

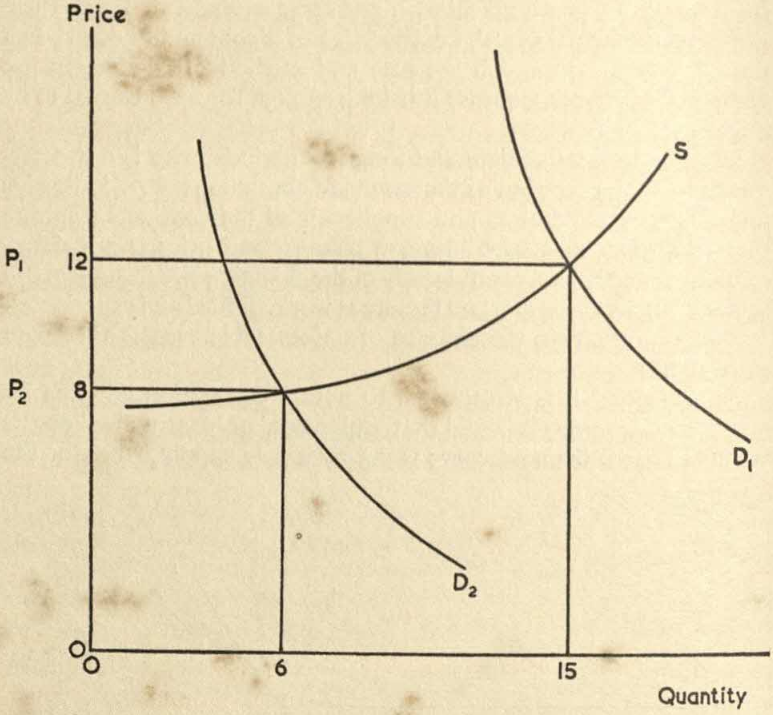

DIAGRAM II B

In Diagram II A, demand has expanded from 15 to 18 units owing to the same demand curve being cut by a supply curve further to the right. This might happen, for example, with food crops when there was a bumper harvest. Similarly, in Diagram II B, supply has contracted since the same supply curve is now intersected by a new demand curve further to the left, perhaps due to a sociologically-induced change of taste. We may say, also, that in Diagram II A, supply has *increased*, and that in Diagram II B demand has *decreased*. It is most important to try to disentangle these separate causes of a given price change.[1]

Amongst the most important factors causing an increase or decrease in demand are changes in the size or age-composition of the population; changes in the size or distribution of income, changes in the prices of substitutes or complements, or the introduction of new substitutes; new preferences (or the reverse) on the part of buyers, and the so-called 'demonstration effect'; i.e. a desire to consume or own what others consume or own (in Indian terms 'Keeping up with the Pandits!'). Other important factors often mentioned are changes in the volume and nature of expenditure by public authorities, and anticipations of probable price trends, as, for instance, when the Korean war led to the anticipation that prices would rise, with the result that purchasers attempted to buy more than otherwise they would have done, with the object of buying 'cheap' (i.e. before prices rose) and selling dear later on.

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[1] See Chapter III D.

One example of how the above-mentioned changes may affect price is as follows. If population grows, there will be more mouths to feed. Hence the demand for rice (from those who consider it a prime necessity) will increase, and—as supply cannot be substantially increased in the short-run—price will tend to rise.

The same quantity as before (in the absence of further supplies) will sell at the higher price. This may attract supplies from areas with a bumper harvest, or from abroad, thus increasing internal and/or external trade. Price may then fall again, but not to the earlier level (owing to costs of transport). Purchasers who now have to pay more for rice (unless their incomes have, for some reason, increased proportionately) will have to reduce their consumption of other commodities, so that the demand for, and the price of, the latter will fall. Those who can no longer buy rice at the higher price will increase their demand for cheaper substitutes, the demand for and price of which will rise. In course of time cultivators will adjust their sowings to meet the changes that have occurred in the relative profitability of crops. Cultivators who market a substantial proportion of their crops may gain from the general tendency towards increased demand and a rise in prices. Those who are normally mainly self-sufficing may have to market more than before in order to buy commodities whose prices have risen (for it must be remembered that a growth of population tends to raise the demand for all the necessities of life). On balance they may gain, or lose. Traders, transporters and middlemen may gain more than cultivators, bringing about some redistribution of incomes and changes in employment. The poorest peasants may have to eat less or to adopt an inferior diet, with a consequential deterioration in health, perhaps leading to increased expenditure upon Public Health, and increased taxation to meet the bill.

This example illustrates some of the far-reaching results that may follow from even a small initial change, and the complex and indeterminate nature of its ultimate effects on prices and on the economy as a whole. Moreover the economic effects of the change in age structure, which will result if population growth also entails an increase in the rate of population growth, have been omitted above.

On the supply side some of the major factors initiating changes are improvements, adaptations and inventions in the techniques of production (which may reduce costs and alter relative costs in different employments), an increase in the scale of production of particular goods (which may introduce economies), changes in overseas demand for exports, and changes in natural conditions (such as harvest failures or widespread bumper crops). 'An unusually good or bad harvest,' says Benham (*Economics*, 6th Edition, p. 197), 'may upset all calculations. When such a change takes place, the existing supply schedule no longer applies, and must be replaced, at least for the time being, by a new one.' The construction of new wells or other irrigation works and the adoption of improved agricultural practices (including the greater use of manure) may also cause important changes in a supply schedule. For instance, adoption of the Japanese method of rice production (already in force in a number of areas) may lead to greatly increased yields per acre, with little or no increase in costs of production (at least whilst labour is in surplus supply, if indeed this is the case). This might induce cultivators to supply rice at a lower price per unit.

The existence of joint products—such as chickens and eggs, of hides (and skins) and wool (or hair), or of different types of products derived from crude oil—also affect producers' pricing, often with long-term effects. There is no theoretical method of allocating costs of production between two or more joint products. The demand for and prevailing price of each product affects the amount produced and the profitability of producing both products. If, for instance, there is an ever-increasing demand for aeroplane petrol, and sales at the current price cover not only the variable costs[1] but also a large proportion of the overhead costs of petroleum refining, it will prove worth while to market kerosene, and other heavy oils, at a price per unit much lower than that prevailing for aeroplane petrol, if demand for kerosene is elastic. By this means the whole of the heavier oils necessarily produced per given output of aeroplane petrol can be sold, and total profits raised. To take an example very relevant for Indo-Pakistan, if there were a larger market for lamb or mutton there, the price of wool could be reduced so that more could be sold, with the result that the joint production of meat and wool from sheep would become much more profitable. Similarly, if producers can find markets for their (previously wasted) by-products, fixed costs will be spread over a larger output, leading to lower prices, increased output and higher profits.

The same principle operates for joint demand (e.g. for pens and ink, or paints and brushes) but on the whole with less important results.

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[1] See Chapter VI, p. 197, for definitions of various types of cost.

B. MODIFICATIONS ARISING FROM THE ABANDONMENT OF THE ASSUMPTIONS NECESSARY FOR PERFECT COMPETITION

It is now necessary to consider what modifications must be made in demand and supply analysis when the assumptions necessary for perfect competition are removed.

The first assumption—that rational behaviour prevails amongst purchasers—needs little further discussion. It need only be repeated that it suffices, for competitive purposes, that the bulk of the purchasers (but not every individual) should act rationally, and that this assumption can be considered realistic.

The second assumption—that products are homogeneous—is only realistic for a limited number of gradable primary commodities. Homogeneity implies that producers are indifferent as to the origin (or source) of what they buy. That purchasers are indifferent to the source of homogeneous products is realistic except when they are tied (by debt or other obligations) to particular sellers. The results of such personal 'ties' are discussed below in relation to imperfect competition.

Products that are not homogeneous may differ in many respects, but these differences may be subsumed under the heading 'quality', and a higher price is secured for better qualities. If there is a scarcity of the better qualities, this leads to a high price premium for the latter. On the contrary, purchasers may not give high priority to 'quality', so that only a small price premium can be secured for better qualities.

In many cases of non-homogeneous products, differences in quality may not be easily recognized by mere inspection. The producers of better quality goods therefore attempt to secure price premia by building up the reputation of their own firms, or by the use of trade-marks or brands. If these firms succeed in securing a good 'reputation' they become the sole sellers, or 'monopolists' of their particular goods, as discussed in Section C (ii).

The third assumption, necessary for perfect competition, is that prevailing prices are made public and are thus known by purchasers. In practice, especially when prices are not determined in markets, but irregularly, or by private contract, the agreed terms are often not made public and are unknown to other purchasers. Hence the system, common especially in construction industries, of inviting 'tenders' for the job.

The fourth assumption, i.e. the absence of legal or administrative interference with (or limitations upon) prices. At the present day, when most governments influence price formation both directly—e.g. by price fixation, including the price (i.e. wages) of some types of labour—and indirectly, through taxation, quantitative regulations, and other planning policies, this assumption has become highly unrealistic. Nevertheless demand and supply analysis remains capable of throwing light on the effects of such 'interference'. A number of examples of how suitable modifications in the analysis can be made will be discussed below in Section D.

The fifth assumption is that transport costs should be ignored. In practice, costs of transport form a very important element in costs of production and marketing. As already pointed out in Chapter III, however, if competition is perfect (one market, one price) transport costs are reflected in the supply schedule, that is, they determine which suppliers find it worth while to bring their goods (and how much of such goods) to the market, and hence affect market price solely through the composition of the supply schedule.

In the longer-run, however, transport costs play a large role in determining not only the absolute and relative prices of various goods (and services) in different parts of a country, but also what type of goods (e.g. whether wheat, rice or millet) are commonly consumed here, which there. They also have a profound effect (so far as choice of sites depends upon economic considerations) upon the location of manufacturing industries and upon regional specialization in general.

The last assumption is that there is mobility of the factors of production, so that there is free entry to the market. (For 'land' this means that the use of land can be freely changed.) Otherwise—if, for instance, there should be a shortage of labour—cost of production, and therefore price, will be artificially raised.

Abandonment of one or more of the assumptions necessary for perfect competition normally entails modifications (sometimes very far-reaching) in demand and supply analysis. It does not, however, necessitate abandonment of the often quite realistic assumption that, within limits varying with the particular circumstances, competitive conditions contrive to prevail, even though competition is no longer 'perfect'. This means that, after making allowance for the relevant modifications, demand and supply analysis can still throw light on the nature and significance of the various factors influencing price formation.

If, however, competitive conditions are replaced in a particular sphere by the formation of monopolies, or by 'imperfect competition', in the sense that the number of competitors (whether on the demand or supply side) becomes so small that the individual buyer or seller can influence price by his own independent action, a new situation arises which must now be examined.

C. MONOPOLY AND IMPERFECT COMPETITION

(*i*) *Monopoly and Price Determination*

A monopolist is usually defined as the sole seller of his particular product. Economists call a sole buyer a 'monopsonist' but the following discussion will be confined to monopoly situations. The same principles, however, apply to 'sole buying'.

The above definition of a monopolist raises the question of what is 'a product'? How can one classify 'goods' or 'products' so that nothing in one class can be considered to be a substitute for those in other classes? Clearly this cannot be done, especially when it is remembered that in a sense everything can be considered as a possible substitute for everything else. This difficulty can be to a great extent overcome in practice by saying that a monopolist's product is something for which there is no close substitute.

It is unlikely that one individual or firm can establish a world-wide monopoly over an extended period. Possible exceptions may occur with regard to rare minerals (or other natural substances) whose existence is known in only one or two areas.

On the other hand there have been and are many cases of 'national' monopolies, whether in public or private hands. The intrusion of competitors into spheres monopolized by public authorities can be prevented by law or other regulations, for instance, as regards competition from abroad, by import prohibitions, quotas, duties and licensing. Certain quantities of competitive products, however, are often permitted to be imported to prevent undue scarcities and excessive prices, but not to the extent that they remove all monopoly power from the domestic concern. Monopolies in private hands may also be encouraged and assisted where the establishment of new industries is deemed to be in the national interest. Sometimes the markets for the products of national monopolies may extend to other countries where, for some reason, there is no domestic output of the relevant goods. In such cases no legal sanctions can be applied to prevent the emergence of rivals, but the monopolist can often kill potential competition by temporary price-cutting.

Government monopolies are normally established for military equipment of many types, to raise revenue (e.g. from a salt tax), to control consumption (e.g. of opium), in the interest of actual or alleged economic efficiency (e.g. postal services and various transport monopolies), and to carry out large-scale industrial and development projects desired for planning purposes, which are unlikely to be undertaken by private enterprise. In most countries public utilities of various types (e.g. water, gas and electricity supplies) are the monopolies of local or other public authorities. These latter may be called 'natural monopolies', in the sense that it would be costly and inconvenient to have several sources of supply.

Private monopolies tend to arise from the 'economics of large-scale production' (further discussed in Chapter VI) and also from the existence of so-called 'excessive' competition. In the former case a particular firm operating in an industry affording important economics of scale may, by purchase of, or amalgamation with, rival firms, either establish a complete monopoly or acquire sufficient control over its remaining rivals to enable it to exercise monopoly power—usually in the direction of preventing a fall in prices, or even raising them. It is not unusual for a monopolist firm to permit a number of small rivals to remain in existence (that is, to refrain from driving them out of business by price-cutting or other devices) in order not to attract attention, and hence, possibly, governmental intervention. In such cases these small firms, to save their skins, follow the price leadership of the monopolist firm. In the latter case, where 'excessive' competition is said to exist (normally in periods of depression and therefore falling prices) there are normally a number of large-scale firms with considerable financial backing. Each of these may be able to retain—by long-term contracts, specialized products which are trade-marked or branded, and customer loyalty, etc.—a certain proportion of its market. It therefore becomes extremely difficult for any one firm to drive the others out. In the expectation of better times all are prepared to make short-term financial sacrifices in the hope of long-term profits. In fact this is a case not of 'excessive' but of 'imperfect' competition (see C (ii), p. 78). The solution may be amalgamation with, or the purchase of rivals or at least the formation of price agreements; that is, monopoly. Alternatively, a small number of large firms may remain in being more or less permanently, operating under conditions of imperfect competition.

It is not, however, our purpose to discuss here the various types of monopolies, but to distinguish between competition and monopolistic price determinations.

The monopolist, like the competitor, and all businessmen (including the smallest trader or industrialist), normally aims at maximizing his net returns (i.e. profits). Let us assume that he is considering whether or not to increase his output. In this case he makes his decision, just as the competitor does, by estimating what would be his extra receipts from selling more, and setting against them the extra cost of the additional output. This means that his aim is to equalize marginal revenue and marginal cost. Like the competitor, the monopolist is faced by his customers' demand schedule, which determines how much he can sell at each price. For our present purpose it is assumed that the demand schedule is known to him, at least approximately. Diagram IV in the appendix to this chapter illustrates the position when the monopolist equates his marginal revenue with marginal cost.

It is in the second case, now to be examined, that the position of the monopolist diverges from that of the competitor. By definition, the monopolist can fix prices, whilst the competitor cannot. Hence the monopolist's marginal revenue—i.e. the addition to total revenue obtained by the sale of one more unit of output over a given period of time—is not equal to price. This requires further explanation. The first point to remember is that if the monopolist fixes price, the demand schedule determines how much he can sell. If he fixes output, the demand schedule determines price. His policy can, therefore, be approached from either point of view.

How, then, does the monopolist estimate his marginal revenue? Let us assume that he decides to increase output, with the result that price falls—by how much, depending upon the elasticity of demand. The demand curve facing a monopolistic seller necessarily falls, if the latter increases his output, because such an increase amounts to a change in the supply schedule. The new supply curve therefore cuts the unaltered demand curve at a lower price.[1] The new (lower) price applies to all units sold. He therefore calculates his marginal revenue by multiplying the total (larger) numbers of units sold at the new (lower) price and deducting therefrom the product of the total (smaller) number of units previously sold, by the former (higher) price. If the result is negative, he will not increase output. If it is positive, this will be his marginal revenue, which cannot equal price, because marginal revenue must lie below average revenue when the latter is failing, and the average revenue curve relates price to quantity.[2] He then estimates the marginal cost of the increase in output. Marginal cost is defined as the addition to variable costs (such as raw materials, fuel, and labour) entailed by an increase of one unit of output over a given period of time. Only variable costs have to be taken into account in the short-run, because fixed costs would not be affected by an additional unit of output.[3] Clearly, it would not be worth while to introduce new plant machinery or equipment for the sake of one or a few more units sold! Deducting the increase in (variable) costs from the marginal revenue will decide whether or not there would be a gain from an increase in output.

It would, however, be very unrealistic to make estimates of marginal revenue and marginal cost for a very small change in output or price. But, as Benham points out,[4] a unit of any size can be chosen. If the chosen additional unit of output is very large, it may necessitate an increase in plant or equipment, which in its turn means an increase in fixed costs. Hence, in the long-run, additional fixed costs also come into the picture.

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[1] See Diagram II A, p. 67.

[2] This argument is illustrated graphically in the appendix to this chapter.

[3] The various types of costs are discussed further in Chapter VI.

[4] See *Economics*, 6th Edition, p. 209.

If a significant change in output (or price) is contemplated, the point at which a monopolist's marginal revenue will equal his marginal cost may differ substantially from that which would occur under competitive conditions. Moreover, the net profit to be secured from an increase in output will depend not only upon the determination of the point at which marginal revenue equals marginal cost, but also upon the elasticities of the demand and cost curves. A cost curve is simply a supply curve after elimination of all factors, except cost, affecting supply. (There may, for instance, be quantitative limitations on supply and output which are outside the control of the monopolist.) It has already been pointed out that even marginal revenue depends indirectly upon the elasticity of demand, and later an illustration will be given of how inelastic demand combined with restriction of output can result in very high profits. Similarly, the size of profits depends much upon whether a firm is operating under increasing or decreasing returns: that is, upon whether costs decrease or increase as output rises. The rate at which this happens (in the one direction or the other) affects profits by its influence on total or marginal costs, and hence on net revenue.

If output is increased and price falls, if demand is extremely elastic over the relevant portion of the demand curve, very much more may be sold at the lower price. If the monopoly is operating under decreasing costs, there will be less than proportionate costs to be deducted from the monopolist's total revenue at the new level of output. The result may be much larger sales at lower prices and larger net returns (i.e. profits). Under competitive conditions this cannot happen as a result of the decision of any one competitor, because—by definition—he cannot affect price. Under competitive conditions, however, when costs are decreasing and demand increasing—a situation most often found in a newly-established industry with opportunities for technical improvements and large-scale economies—it is likely that, after a phase during which price tends to rise, all the firms in a position to increase output will do so, and the equilibrium price may prove to be lower, and output higher, than previously. Nevertheless as the competing firms are relatively small, and thus unable to reap all the economies of large scale, price may never fall and output rise to the extent that would occur under a monopoly.

Indeed the main defence for monopoly is that, under the conditions mentioned above—especially if the relevant industry affords great opportunities for large-scale economies—it may be able to operate more efficiently (i.e. at lower cost) than can be achieved under competitive conditions. It is therefore likely that one or more firms will forge ahead, and establish either 'imperfect competition' or 'monopoly'. Assuming that a monopoly exists or is established, the result in the short-run would mean larger sales at lower prices, and an advantage to consumers and the nation as a whole. There is, however, no guarantee that this efficiency will be maintained without the spur of competition. Moreover, decreasing costs cannot continue permanently in the longer-run, whether under competition or monopoly. After a time (see Chapter VI) limitations on the economies of scale come into force, and it becomes necessary to duplicate machinery and plant. These limitations may be outweighed by the introduction of new techniques and processes, either for a period or indefinitely.

Another situation where the monopolist can pursue a policy different from that of a competitor is as follows. He may find that he can secure greater profits not by increasing, but by decreasing, output, as a result of raising price. If demand tends to be inelastic he may sell only slightly less than before, but, as each unit of output is sold at the higher price, his total returns (sales multiplied by price) may rise. The reduced output will to some extent reduce his (variable) costs, and this saving must be added to his increased total returns to give his net revenue. In such a case the monopolist gains from the changes in both receipts and costs, to the detriment of his customers and of the economy as a whole. Profits thus secured are normally called 'monopoly profits', and are considered as 'exploitation of the public'.

A similar policy could not be applied under competitive conditions, because at a higher price (if it could be set) it would pay many firms to increase output, so that in due course price would again fall to the level at which demand equals supply.

The dangers of monopoly therefore arise from two main sources. The first is the monopolist's power, under certain circumstances, to gain higher profits from raising price above the competitive level (and hence reducing output). This is most likely to happen when profits are high, demand increasing, and the national need to increase output is greatest: a situation of the greatest importance to developing economies. The monopolist may, indeed, subsequently raise output, as demand increases, but may still find it profitable to maintain price above what would be the competitive level. The second danger is that removal of the spur of competition may result in conservatism, complacency and lack of enterprise. The monopolist may then cease to introduce improvements in techniques, organization, management, labour relations, etc. and to restrict (or fail to extend) research and experimentation. When such a firm is working to capacity, there may even be reluctance to duplicate plant and to expand in general.

How, in practice, monopolist firms determine their price policy, and whether the principles set out above are realistic, has been a matter of controversy, as also what should be the price policy pursued by government monopolies. To discuss such controversial matters would, however, be beyond the scope of this volume. It is undisputable, however, that it is easier for firms operating under competition to assess the gain to be derived from increased output than for the monopolist to determine what would be to his best interest, whilst the monopolist's 'best interest' is often different from the national interest. The difficulty of deciding upon the price policy for government monopolies is still greater. At present those adopted in India and Pakistan are varied, and appear somewhat arbitrary. The prescription that government monopolies should act according to 'commercial principles' provides no final solution, because the results of the price policy pursued depends upon what use is made of the profits reaped.

In conclusion it may simply be stressed that public and private monopolies are particularly likely to play an important role in developing economies, and that control of monopoly exploitation is important to prevent inefficiency in the allocation of investment, the restriction of output, unnecessarily high prices, and barriers to the entry of possibly more efficient and up-to-date firms.

(*ii*) *Imperfect Competition*

'Imperfect competition' may be defined as a situation in which competition has not been eliminated, but in which either the number of competitors is small enough to enable each firm to influence price, or wherein a firm has a monopoly over part of his product or of the market. How imperfect competition can arise from either the emergence to predominance of a small number of large firms, or from the power of certain firms to 'tie' part of the market to themselves, has already been explained. In addition Trade Unions, and other industrial and professional associations, are able to establish local, partial monopolies for manual labour and technicians. The term 'partial' monopoly is meant to imply that in the last resort labour can be brought in from outside the associations, or locality, thus limiting the monopoly. Nevertheless it is undeniable that Trade Unions, if strong enough, can exercise a degree of monopolistic control, whilst restrictions on entry to training for recognized qualifications may reduce the supply of trained labour. Similarly restrictive practices, such as rules confining certain jobs to certain classes of workers, or limiting the work to be done by individual workers (e.g. limiting the number of looms to be operated by one worker) may reduce output, raise costs, and prevent industrial expansion. This is not to suggest that the rise of Trade Unionism and the practice of collective bargaining necessarily hinder industrialization or raise costs of production. On the contrary, Trade Unions have and still perform many functions (of which collective bargaining is one) conducive to efficiency, increased output and lower costs. Nevertheless Unions can abuse their power, whilst the strike remains a powerful 'conventional weapon'. Moreover, the formation of a local monopoly of labour stimulates combinations of employers, and no one can say what will be the result of a struggle between a monopoly of demand (for labour) and a monopoly of supply (of labour), whilst for their part employers' associations have their own weapon—the lock-out.

The rest of this section will, however, be devoted not to any comprehensive description of various types of imperfect competition, but to a brief survey of the problem of price determination when the output of each competing firm is large enough, in relation to the total output of the relevant industry, to enable it to fix its own price, but not to determine the price set by other firms.

The assumption is that each firm can pursue its own price policy. A variety of alternative results may follow. One outstanding firm may become a 'price-leader', and count upon its policy being adopted by the others. This amounts to the formation of a monopoly, although an unstable one. Any member of the price-ring can break away at any moment, if it is prepared to fight for price-leadership, or thinks it can gain from a price war. From the point of view of any one firm, what has to be considered is not only what (other things remaining equal) would be the most remunerative price for itself, but what is likely to be the effects of its independent action on the price policies of the other firms. Under such conditions what level of price will prevail is quite indeterminate.

It is beyond the scope of this chapter to delve into the intricate problems involved by an analysis of the various price policies that might be pursued, based on varying assumptions as to the behaviour of each of the individual firms operating under conditions of imperfect competition. All that need be said is that one result of imperfect competition is often the adoption of agreed restrictive practices of various types, such as 'price maintenance' policies (common in many countries), whereby firms agreed not to sell certain goods at less than fixed minimum prices. 'Price maintenance' is advocated as a stabilizing measure, but criticized as resulting in monopolistic profits resulting from prices held above the level necessitated by costs of production. To eliminate such practices by legislation may succeed, but has not always been successful, and may lead to government price fixing, which merely transfers the problem of price policy from the private to the public sector.

One special case of imperfect competition commonly found in India and Pakistan may however be noted.

This relates to the interest charges of money-lenders (including traders and merchants who also make loans) in rural areas beyond the reach of organized credit institutions. Interest is the price paid for a loan of credit or cash. It is well known that in rural areas such loans are hard to come by, and that interest rates tend to be 'usurious' in the sense that they are far and away higher than in areas served by modern credit institutions or by co-operative credit societies.

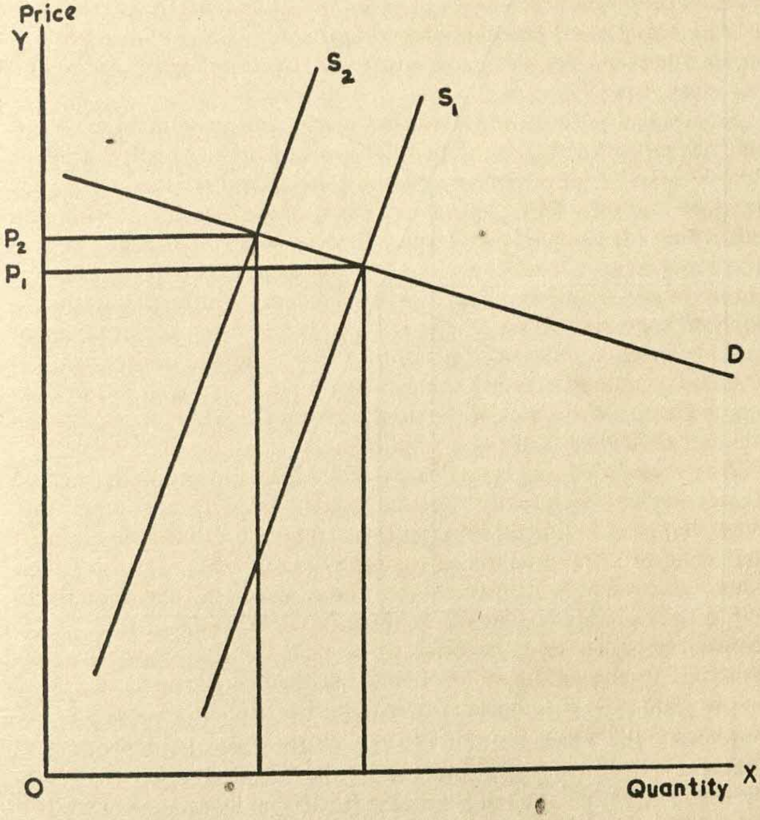
It is often suggested that money-lenders make large profits and exploit the weak position of the cultivators and other borrowers. This is not necessarily true. First it must be remembered that to give temporary accommodation to cultivators whose receipts are seasonal, or depend largely upon natural forces beyond their control, is to perform a necessary and most valuable service. If the money-lender did not exist, he would have to be created, and his creation under better guise is being attempted in the form of co-operative credit-societies. The latter serve their customers better and at lower interest rates than money-lenders, but they are much less accommodating. Either they restrict loans to those who are, or appear to be, credit-worthy, or—if membership is open to all—they tend to go bankrupt in bad seasons or times of depression. Wholesale bankruptcy of credit societies has occurred over and over again in India and Pakistan.

Second, it has to be admitted that many, and in some areas most, cultivators (and other poor people) are not credit-worthy: that is, their annual or long-term incomes are insufficient to cover the payment of interest and repayment of debt, as well as their living and cultivating expenses. Hence money-lenders undertake great risks, so that large returns from their loans to some customers have to cover failure to pay by others. Indeed many loans remain permanently unpaid, so that interest payments have to cover some replacement of capital as well as the cost of temporary loss of the use of the cash lent or credit granted. Certainly some money-lenders are 'sharks', battening on the misfortunates of the poor, but on the whole it is doubtful whether their profits are abnormally high.

Why money-lending is not necessarily highly profitable is because money-lenders frequently operate under imperfect competition. What happens is that in making loans they are often able to insist that their debtors pay interest (or repay loans) in kind, out of their marketable surplus at harvest, the whole of which they promise to sell to their creditors. One of the most unfair features of the money-lending system is that the price to be paid for the crops thus surrendered to the creditors is often fixed, before harvest, at a level below what proves to be the prevailing price. Hence the debtors fail to earn enough from the sale of their crops to pay off the whole of their loans, which means that they are unable to borrow elsewhere. By this means each lender contrives to 'tie' to himself a number of his customers. For this reason rival money-lenders cannot attract such would-be borrowers to themselves, even if they are willing to make loans on easier terms. In other words, each money-lender has a monopoly in relation to some borrowers, but cannot secure the custom of those borrowers who are 'tied' to his rivals. Hence instead of the most efficient lenders ousting the less efficient, more than are necessary to perform the function of money-lending in the market served remain in business. Their profits, however, are limited by the restricted size of the market open to each.

D. MODIFICATIONS ARISING FROM 'INTERVENTION' BY PUBLIC AUTHORITIES

Intervention by Public Authorities takes many forms. All such interventions necessitate modifications in the short- and long-term analyses of demand, supply and price. The examples chosen for



DIAGMAM III A

consideration here are commodity taxation; price fixing; rationing; restrictions on output; and nationalization of industries. The effects of government control of the location of industries are dealt with in Chapter VI, B (iii).

(i) Under perfect competition in the short-run the effects of the imposition of a tax on one commodity (other things being equal) will be to raise price and to reduce sales, the extent to which price will be raised depending upon the elasticities of demand and supply. If the tax is levied on the producer (e.g. excise tax) his costs will be raised, necessitating a new supply curve, as shown in Diagram III A and B.

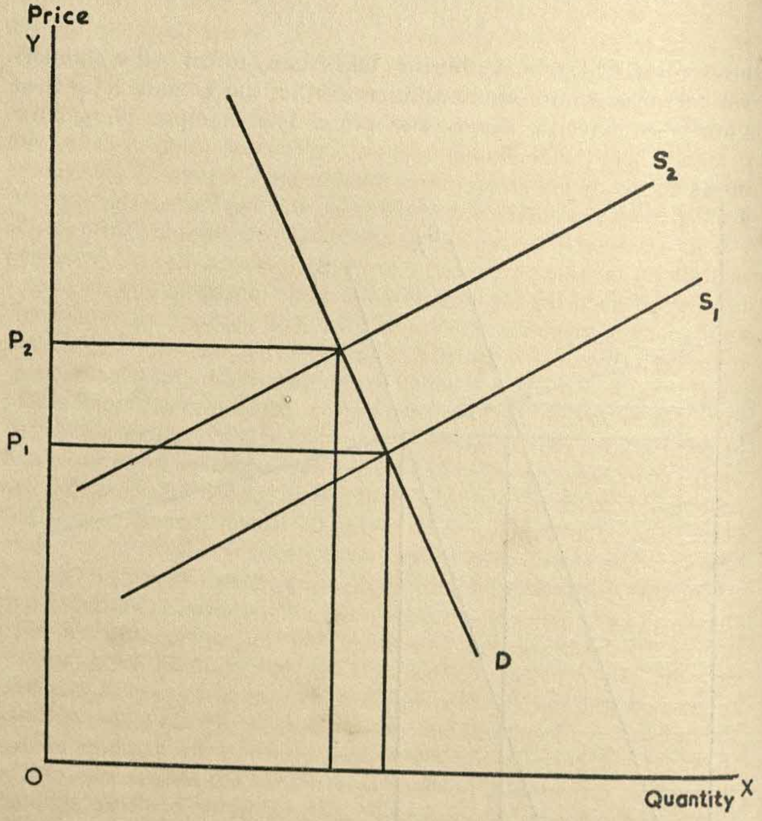


DIAGRAM III B

If a purchase tax is levied on buyers, raising the price of their purchases, this again amounts to raising the cost of the product, so that the effects of taxation remain the same. It also makes no difference whether the tax is specific (i.e. so many annas per unit) or *ad valorem* (a given percentage of the supply price), providing that the burden imposed is equal, that is to say that X percentage of the supply price equals a specific tax of Y per unit of output.

Diagrams III A and B show the old (S.1) and new (S.2) supply curves, which cut the demand curves at the old (P.1) and new (P.2) prices respectively.

The imposition of an indirect tax will always tend to raise price and reduce the quantity sold. But price will never rise to quite the full extent of the tax, because—on the assumption of increasing costs—the marginal cost to producers necessarily falls with a smaller output. Whether it is the buyer or the seller who bears most of the incidence of the tax depends on the relative elasticities of demand and supply. If, as in Diagram III A, demand is more elastic than supply, the producer will bear more of the burden, since the fall in quantity sold will be relatively greater than the rise in price. Diagram III B illustrates the converse situation where supply is more elastic than demand; here the consumer bears more of the burden since the rise in price is relatively greater than the decrease in quantity sold. If the elasticities of the curves are equal, price will rise by half the tax.

This analysis can be best understood by thinking of relative inelasticity as indicating relative urgency; inelastic demand means an urgency of need for the commodity, whilst inelastic supply means an urgency of need for the income from its sale.[1] In the first case, the reason is a lack of substitutes for the goods demanded; in the second, a lack of substitute goods which can be produced with the same factors of production. This argument about taxation may, incidentally, be reversed if we are thinking of subsidies or of a reduction in distributive costs between seller and buyer. In these cases, both buyer and seller will benefit, but the buyer will benefit most if his demand is less elastic than the supply, and the producer will benefit most if his supply is less elastic than the demand.

The burden thrown by indirect taxation on a producer means that there will be some excess capacity and a corresponding reduction in profits. In the longer-run producers will not replace all their fixed capacity. Eventually, the business will once again yield normal returns on (the reduced) capital. But investment in the industry and the industry's output will be less than they would have been without the tax. In exceptional cases producers may be willing to bear the tax themselves rather than produce less, if they are able to absorb the tax by introducing equivalent economies in costs. This assumes previous inefficiency, and suggests that sometimes taxation of an inefficient industry may stimulate reforms. It has been suggested that increased taxation of agriculture in some undeveloped countries might have this effect, as well as raising revenue for development.

Under monopoly and imperfect competition a tax will again tend to reduce output and raise price, with similar results to those occurring under competitive conditions.

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[1] See Chapter III, B.

One policy conclusion emerges clearly: i.e. that from the revenue and output points of view alike, taxes can preferably be laid on commodities for which demand is relatively price-inelastic, but as this entails taxing necessities, it also entails taxing the masses.[1]

(ii) The most usual reasons for governmental price-fixing are to keep down the price of necessities for the sake of the poor, and to prevent an inflationary rise in the price level as a whole. A rise in the price of necessities and a tendency towards inflation often occur simultaneously (as in India during the Second World War and some post-war years). The results of 'fixing' maximum prices for the main foodstuffs whilst they are in short supply in a developing country have been so disastrous, and even paradoxical, that few people would now advocate such a policy. The object was to enable as many people as possible to purchase some cereals at a 'reasonable' price. In practice (in India) black markets developed, selling at high and ever-increasing prices, whilst some cultivators and many dealers kept stocks off the market in the (justifiable) anticipation that prices would rise still more. Very small quantities could be bought at the fixed price. The situation was that the market prices of other foodstuffs tended to rise (before their prices were fixed) because of unsatisfied demand at that price. Fixing low prices increased the pressure of demand, with the results described above (black market and a reduction in offers for sale). In other words, in periods of scarcity maximum prices cannot be enforced unless supplies are controlled (e.g. by complete government procurement and resale at subsidized prices: a tremendous administrative task).

(iii) Rationing, entailing substantial control over supplies, and quantitative restrictions on purchases per head—again under as strict as possible government control—eventually restored some order into the Indian cereal markets, after the disastrous experiment described above, but only after much suffering by the poor, and some million deaths from starvation in the Bengal Famine of 1942. (It is only fair to add that there were other causes of the famine besides the price policy.)

The economic principle underlying rationing is that, when demand exceeds supply except at an abnormally high price (at which the poor cannot buy) the only method of distributing supplies more or less equally is for the government to 'procure' all marketable surplus (by compulsory purchase, at reasonably profitable prices) and redistribute it at subsidized prices, at the rate of so much per head. Even so it is difficult to prevent corruption and black markets even when all purchases and sales are in the hands of licensed dealers. Stocks also have to be restricted. The size of the rations that can thus be distributed obviously depends upon the quantity of the rationed commodity in the hands of the government (or controlled by it) and the number of persons to be rationed. In India the size of cereal rations varied greatly from one area to another, in accordance with regional productivity, the cost of transport and distribution, and the great difficulty of procuring surplus supplies from prosperous areas for distribution to areas of severe scarcity. Nevertheless rationing, however imperfectly implemented, does prevent the prosperous classes from buying much more of the rationed commodity than the poor, although at the same time they do gain the advantage of the fixed price. Rationing certainly restricts choice, but in times of crisis this is a small disadvantage in comparison with the extreme inequality and suffering which would otherwise occur.

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[1] N.B. In Chapter IX it is argued that excise duties can preferably be levied on goods that are income elastic.

(iv) Restrictions on output are normally adopted only under special circumstances. The object is to give preference to certain producers by limiting the activities of their rivals. A notable example was the imposition in India of limits to the legal output of cotton mills, and the prohibition of the introduction of improved machinery and techniques (which would have increased output and efficiency and have reduced costs). This was done to protect and enlarge the domestic market for hand weavers, mainly to create more employment. It is unproven whether the policy was successful in its objects. The costs (and prices) of hand-woven cloth were above those of the mill industry for competitive types of cloth. The argument was that hand-weaving requires less capital and more labour per unit of output, that capital was scarce and labour plentiful, so that it would be worth while to encourage hand-weaving even at the expense of mill-weaving.

The restrictions on the mill industry hindered modernization, prevented expansion and raised costs. Exports suffered, with detrimental effects on the balance of payments. Had there been no such restrictions, and had exports increased leading to some improvement in the balance of payments, the Government would have been in a better position to invest more in (say) the adoption of measures to remove the main defects in a number of cottage and small-scale industries which had better potentialities of becoming viable than hand-weaving. On balance the rate of economic development and the quantity of employment 'created' might—or might not!—have been greater without, than with the restrictions. No investigation capable of settling the question has been undertaken, although it must be admitted that it might prove extremely difficult to secure decisive data. It might have been better not to restrict the mill industry, so that its competitive position in foreign markets would have improved, but instead to have subsidized hand-weaving (from central revenues, i.e. out of taxation) so that the latter could compete in the domestic market. The economic results of the policy pursued were far-reaching, and the fact that hand-weaving gives more direct employment than mill-weaving was an insufficient criterion for its adoption.

(v) The results of a policy of nationalization of industries are also complicated and far-reaching and have caused great controversy in many countries. It has already been seen that many economic problems are raised by the establishment of government (and private) monopolies, and that their nature differs greatly according to the features and circumstances of each particular industry. All that can be attempted here is, therefore, a few general observations.

If nationalization is a recognized policy but it is not known which industries will be nationalized, a state of uncertainty, disincentive to enterprise, will be created, especially for foreign investors. If monopolies are created, it is difficult to recruit directors and managers as efficient and enterprising as those engaged in private enterprise, and to prevent conservatism. It is also extremely difficult to devise suitable policies and methods of control which will prevent abuses, ensure technical advance, and lead to the adoption of satisfactory price policies. Yet there are cases where private enterprise cannot provide the finance for large-scale long-term projects considered to be essential for planned development. There are also certain industries (insurance may be one of these) where defects and abuses found in private concerns can be remedied by public ownership, whereas their conduct and management requires relatively little of the 'flair' and experimentation characteristic of successful private enterprise. No general rule can be enunciated, but it may be suggested that the policy adopted in Pakistan for some industries for which private capital enterprise was not forthcoming, but which were desired for planned development, is a wise one. The policy was for the Government to establish plant for such industries, but later—when they have become 'going concerns'—to hand them over to private firms. It also seems wise to establish a broad field where government and private firms co-exist and compete, so that monopolies (public and private) may be avoided.

APPENDIX

PROFIT MAXIMIZATION UNDER MONOPOLY

The following diagram illustrates the position when the monopolist equates his Marginal Revenue with Marginal Cost (see p. 75).

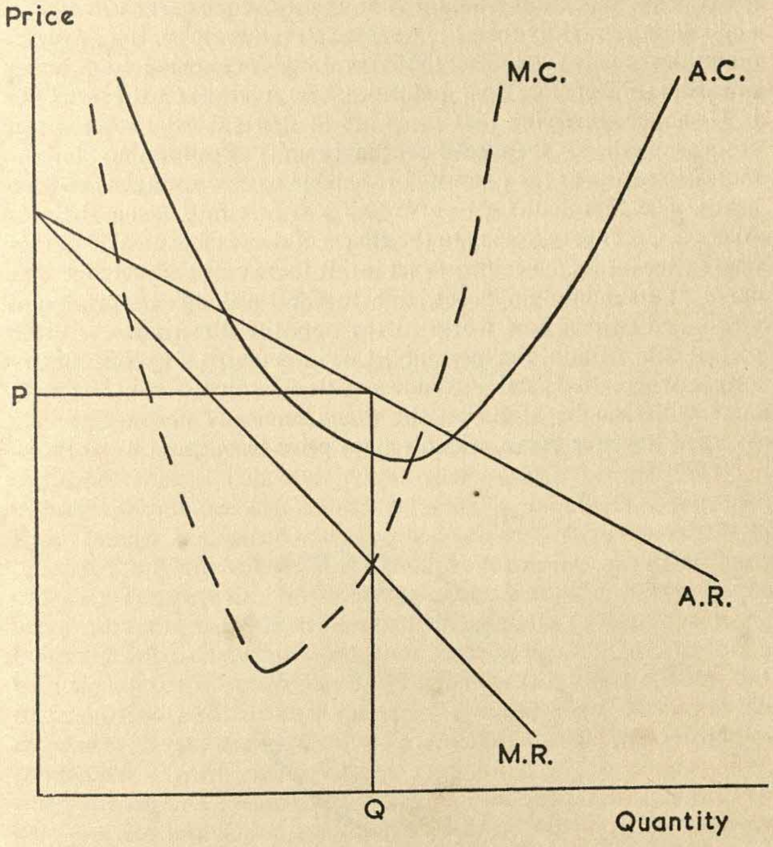

DIAGRAM IV

By definition the monopolist is either a sole seller or controls such a large proportion of his market that the demand curve facing him personally approximates to the shape of the total market demand curve. This curve is called the Average Revenue curve (AR on the diagram), because it shows the revenue secured (after deducting costs) at each price from total sales divided by the number of units sold. It thus relates quantities sold to price per unit. The Marginal Revenue curve (MR on the diagram) shows the additional revenue secured from the sale of one more unit, allowing for the fact that the sale of an additional unit necessitates a reduction in price, and that this lower price applies to all units sold (and not only to the last one).

Since the demand—or Average Revenue—curve facing the monopolist approximates to the shape of the total market demand curve, it will slope downwards, indicating that he can only sell more at a lower price. When this is so, the Marginal Revenue curve will diverge and fall more rapidly than the Average Revenue curve, since average quantities are always subject to the 'braking' (or slowing down) effect of earlier (higher) marginal quantities. The Average Cost curve (AC) is U-shaped, implying that firms are at first subject to decreasing costs as overheads are spread over more units of output, and later to increasing costs as the quantity of variable costs outweighs the overheads. The Marginal Cost curve (MC) at first falls faster than the Average Cost curve, owing to the effects of decreasing costs, but then rises faster (as increasing costs set in). It there cuts the Average Cost curve at its minimum point, due to the 'braking' effect already mentioned (which now works in the opposite direction). As under perfect competition, the monopolist will maximize his profits at that output where Marginal Revenue equals Marginal Cost, i.e. at Q. Price will then be at P, i.e. the point vertically above Q on the Average Revenue curve, which relates price to output.

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CHAPTER V

‘PRODUCTION’ AND THE FACTORS OF PRODUCTION

A. ‘Production’ and Combination of the Factors
B. The Roles of the Factors and Factor Pricing
  (*i*) ‘Land’ (i.e. Natural Resources)
  (*ii*) Labour
  (*iii*) Capital
  (*iv*) Business Promotion (‘Entrepreneurship’)
C. The Distribution of the National Income between the Factors and Those Who Provide Them

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A. ‘PRODUCTION’ AND COMBINATION OF THE FACTORS

In the past there have been many controversies about what are, and what are not, productive activities. Some writers have wished to confine the term ‘productive’ to activities resulting in the output of material objects, whilst others have even maintained that only agriculture is truly productive, because all processing of natural or primary products merely alters their form. Today, however, it is generally agreed that all occupations and activities resulting in the output of material objects (whether primary, intermediary or finished goods), and the performance of services (clerical, commercial, administrative, professional, artistic, etc.) that provide mankind with utilities or satisfactions, and for which people are willing to pay (in the sense of giving something in return) are to be considered ‘productive’.

For instance, transport moves goods from places where they are less, to those where they are more useful (or in demand), and command a higher price (covering the costs of transport). People who have the means are willing to pay for medical and legal advice or services. They are also willing to pay for the pleasure (*or satisfaction*) of watching dancers or the cinema, or theatrical performances. Satisfaction is derived from the purchase of charms, and the performance of ceremonial rituals. In fact, the only activities considered to be non-productive are those of thieves, dacoits, kidnappers and other law-breakers. Some people, it is true, are willing to pay for the assistance of law-breakers, but the latter cannot be considered to add to total national satisfaction, from which they deduct at least as much as they add. A thief, for instance, takes from one person and gives to another (usually himself!) and there can be little doubt that the damage done to society exceeds the satisfaction derived from theft, if only on account of the expense of supporting a police force for the prevention of this and other illegal acts.

In order that production can take place mankind must have some resources at his disposal, and must act in an appropriate manner. It is usual to call these resources, and man's own activities, the 'factors of production', and to classify them under the following four headings: i.e. (i) Land, in the broad sense of natural resources; (ii) Labour, including the activities of all who take part in the production of goods and services; (iii) Capital; and (iv) Business Promotion (or 'Entrepreneurship').

For production to occur, at least two factors must be combined, whereas in most cases all four factors play some part. Without the combination of 'land' with labour, nothing can be produced even under the most primitive conditions. For instance, a hill-tribe subsisting upon wild forest and other vegetable products must at least pick and collect such products even for self-supply. If hunting or cultivation is undertaken, some 'real' capital, such as spears, bows and arrows, simple snares, or implements used in preparing the soil, planting seed and harvesting come into use. The most striking distinction between a primitive and a mature economy lies in the much greater amount of (real) capital employed per head in the latter. Business promotion and organization also plays an increasing role as an economy develops, but even in a purely agricultural society the head of a cultivating family normally directs the family's activities, and decides what crops shall be grown, what cattle or other beasts shall be kept, and so on.

One general 'law' (or principle) which affects the combination of the factors is the law of variable returns, or—as it is frequently called—the 'law of diminishing returns'. In the latter form the law states that if the quantity of one factor of production is increased by given increments (or units), the quantities of the other factors remaining unaltered, the resulting increments of product will decrease after a given point. Moreover, although when the increments of product of the variable factor first begin to decline there will still be some increase in total output, in the long-run this will no longer occur. This latter result will follow because ever-increasing supplies of only one factor will reduce the productivity of the units of that factor already employed. For instance, if a hand-weaving family has only one loom and there is no room for another (fixed capital and land-area) if more and more members of the family share in the weaving, eventually the frequent changes in those who use the loom will waste so much time that total output will fall. In practice what would happen is that at first some of the additional workers will not be fully used, and eventually some may not be used at all.

The term 'variable returns' is more explicit than 'decreasing returns' because, if the variable factor is at any moment in short supply in relation to the other factors, additional increments of it will, for a time, secure increasing returns. But when this variable factor ceases to be relatively scarce, decreasing returns will necessarily set in.

This might happen, for instance, when a cultivating family (with, for instance, two workers) at first had a holding of one acre, which could not be cultivated right up to its boundaries, and which did not fully employ them. Subsequently, the family secured one more acre each year until they had five—but had no more equipment. The second acre still meant that the boundaries formed an unduly large share of the holding, but both marginal and average product increased, as well as (of course) total output. By 'marginal product' is meant the addition to the total product due to the addition of one more unit (in this case—'acre') of a variable factor of production; 'average product' refers to the average output per unit of a variable factor; i.e. total output divided by the number of units of the relevant factor (in this case total output divided by the number of acres). Table II illustrates this case. The third acre rectified the shape of the holding on which the marginal product was 808 lbs., whilst the average product rose to 779 lbs. The existence of increasing returns in each case is shown by the increase in marginal product and hence, necessarily, in average product. The addition of a fourth acre led to little change in output per acre (the same marginal product as for 3 acres, and a slightly larger average product), but the addition of the fifth acre made the holding rather too large for 2 cultivators (with no increase in capital goods), so that marginal product per acre fell. Total output, however, continued to rise.

Table II
Product of Land (*in lbs. of rice*)

Numbers of acres cultivated	Total output of holding	Number of cultivators (1)	Average Product per acre (2)	Marginal Product per acre (3)
1	790	2	790	790
2	1,590	2	795	800
3	2,398	2	799	808
4	3,206	2	801	808
5	4,006	2	800	800
20	6,000	2	300	—
40	3,000	2	75	—

(1) It is also assumed that there is no change in capital equipment.
(2) 808 lbs. was the average yield per acre in India in 1959–60.
(3) As no figures are given for 19 and 39 acres, the marginal product per acre of land cannot be stated.

Table II now 'jumps' to the situations where the holding comprises first 20, and then 40 acres. With 20 acres although total output has increased, the average product has greatly fallen, implying that the marginal product (which cannot be given here as no figures have been given for 19 acres) has fallen still more. Finally, with 40 acres—an area clearly far too large to be efficiently cultivated by only 2 men (with very little equipment)—not only has average product per acre fallen drastically, but total output is only half of that obtained on 20 acres. These imaginary figures illustrate what might happen if two cultivators attempted to bring the whole 40 acres under cultivation with the help of only primitive equipment. Their efforts would be so thinly spread, and cultivation so inefficient, that total output would become derisively small. In practice, unless labour and capital could be increased, part of the holding would be left uncultivated, or, more likely, would be leased or sold. This 'law', or principle, clearly rests upon experience, observation and common sense, but its implications are made more explicit by figures such as those given in Table II, whilst it must be remembered that the tendencies would be the same if any other factor than 'land' was assumed to be variable. It must also be noted that the principle assumes no change except in the amount added of the variable factor. If inventions, or improvements, affect one or more of the other factors, rendering them more productive, this would have the same effect as an increase in their amount, and would postpone the onset of decreasing returns. On the other hand, assuming in this case that labour is the variable factor, improved agricultural techniques or implements would reduce the amount of labour required to produce a given output, so that decreasing returns to additional labour would set in earlier.

These considerations, together with the concept of substitution, and its limitations, help us to understand the nature of the problems facing both planners and business promoters (or 'entrepreneurs'). As Benham says, 'The central economic problem for any community is how to make the best use of its labour and other resources.'[1] This problem includes what is called the 'choice of techniques' of production. This choice arises because, in producing a given output, it is usually possible to substitute one factor for another up to a certain point which varies in accordance with the level and progress of technical knowledge and inventions.

For instance, it is possible to produce a cereal crop by combining either much land and modern agricultural machinery with a small amount of labour, or much manual labour with a small area of land and primitive implements. Which method makes the best use of a community's labour and other resources? The answer depends on the particular community's resource endowment at a particular time. In

[1] *Economics*, 6th Edition, p. 103.

Canada the relatively plentiful land and capital can be substituted for labour up to the point at which labour is necessary to drive and direct machinery. In India and Pakistan intensive cultivation by manual labour with primitive tools is normally substituted for scarce land and capital up to the point at which any increase in the amount of labour employed, in relation to land and capital, would lead to decreasing returns per unit of labour, and perhaps a reduction in the total output of the factors. The former combination of factors tends to maximize output per cultivator, whilst the latter tends to maximize output per acre. This means that in each case the productivity of the scarce factor is maximized. On the other hand in some industries substitution is strictly limited. For instance, not even an army of labourers can be substituted for an oil refinery or a hydro-electric plant. Where the real capital employed (e.g. a refinery or a hydro-electric installation) consists of very large indivisible units, this leads to discontinuity in investment, output, and the expansion of an industry. When a plant is working to capacity and demand expands, the unsatisfied demand, at the prevailing price level, may be insufficient to justify the erection of new plant. For a time this may lead to higher prices, whilst additional profits may be derived from the existing plant. Such additional profits partake of the nature of rent, in the sense of the return (or price) secured by a fixed supply of one factor of production. This is usually known as 'quasi-rent'. Individuals with special skills (such as eminent surgeons) can also earn quasi-rent.

The degree of mobility of each factor also limits substitution and the extent to which combination of the factors can be modified in response to changing circumstances. Some factors, such as particular types of machinery, or highly-specialized personnel, are 'specific'; that is, they cannot easily, or without great loss of value, be diverted to different uses. Land cannot be moved from one area to another. Labour varies greatly in both occupational and regional mobility, according to its quality and qualifications, and its powers and willingness to seek new jobs in new localities. Caste, family ties, tradition and other social circumstances all tend to limit the geographical mobility of labour.

A growing population facilitates occupational labour mobility, as a new or expanding industry can recruit from those just entering the labour market, whilst the retraining of older persons is more difficult.

B. THE ROLES OF THE FACTORS AND FACTOR PRICING

(*i*) *Land* (*i.e. Natural Resources*)

The term 'land', as a factor of production, is used to cover all natural resources (including climate), without some of which production cannot occur. Even services requiring no implements (such as massage) must be provided somewhere, on some piece of land. The demand for land is derived from the demand for the products, or facilities, provided by land. The price (or value) of land varies enormously even within one country, being extremely high in congested urban areas, and very low in remote, infertile rural areas. Desert or mountainous land, yielding no products or facilities, has no value (except, perhaps, as a barrier to aggressive neighbours!). Any country's supply of cultivable land can normally be increased by investment in improvements, such as irrigation works or transport facilities, which can also increase the value of cultivated land. The value of cultivated land can also be increased by more intensive cultivation which increases its output. The value (or price) of land (and of the other factors of production) is thus determined by demand and supply, just as is the value of commodities—if competition prevails.

In countries or regions where land values and rentals are competitively determined, the demand schedules (or curves) for agricultural land are derived from the demand curves for the relevant products, which added together, give aggregate demand curves for particular plots or holdings. Similarly, the demand for urban sites depends upon the derived demand for the services these sites can provide.

A special feature of 'land area' is that (apart from man-made improvements) it cannot be produced. Its total supply is inelastic, and does not depend upon cost of production. This explains the saying that 'rent does not enter into the cost of production'. This is true for an economy as a whole. If demand fell drastically (for instance, owing to a terrible calamity which killed off half the population) rent would also fall, but the supply of land-acre would be the same as previously (although some might remain uncultivated). Indeed, in the late eighteenth and early nineteenth centuries in India population became so scanty (owing to wars and disorders) in parts of Bengal that landlords competed for tenants (who could also act as followers or retainers) and charged no rent. On the other hand, from the point of view of an individual cultivator who wishes to rent land, what he can produce from his tenancy must suffice to enable him to pay rent, so that for him 'rent' does enter into his cost of population.

In India and Pakistan there is no continuous, price-determining market for agricultural land. Land is bought and sold, it is true, but normally only from time to time in any one region, so that its price cannot be considered an equilibrium price, equating the demand and supply as a whole, whether in the short- or the long-run. Hence, the value (or price) of land is usually expressed in relation to the prevailing level of rents per holdings of similar productivity. The capital value of land is then expressed in the form of rent multiplied by a given number of years purchase. But even this gives no criterion of the equilibrium price, as legislation over a number of decades has fixed and progressively reduced legal maximum rents for particular types of land in particular regions. Hence both the supply of land and the level of rents can be taken as fixed. If demand exceeds supply at the prices (rentals) thus fixed, as in fact it does, part of the demand remains unsatisfied, and some people remain landless, whilst others can obtain less land than they would be prepared to buy or rent at prevailing prices. It is interesting to speculate what would happen if rents were permitted to rise to their competitive equilibrium level. One result might be that more land would come into the hands of the more efficient cultivators, with the result that the total agricultural output would rise. As against this advantage would be an increase in the number of landless.

In conclusion, it can be said that the relative price (measured by rent) of a particular unit of land depends mainly upon (i) its fertility and climatic features; (ii) its geographical position with special reference to accessibility; and (iii) the alternative uses to which such land might be put, which necessarily affect demand. In fixing maximum rents in different areas of India and Pakistan, account is taken of the above features by the States and Provinces.

(*ii*) *Labour*

The term 'labour', as a factor of production, is used to include the services of all economically occupied persons, except business promoters (or 'entrepreneurs') who are classified separately. 'Labour' does not consist of homogeneous units. It is supplied by 'labourers', each of whom forms an indivisible unit, although part-time employment can—in a sense—reduce the size of the 'unit'. The nature and quality of 'labour' vary immensely, with the result that those who supply labour-services can be divided into a large number of non-competing groups, between which mobility (and competition) is very small. Special natural gifts and abilities, or the need for costly training and qualifications, limit entry to higher-paid occupations, and account for the higher earnings therein, whilst even horizontal movement from one occupation to another in which earnings are roughly similar, is often prevented by the same considerations. Within each non-competing group the price of labour (given competitive conditions) is determined by demand and supply, which also determine the relative levels of the rewards of labour in the different groups. Another way of expressing what is essentially the same principle is the so-called 'marginal productivity theory of wages'. This states that labour will be paid the value of its marginal product. It rests upon the concept that it will pay an employer to take on more workers so long as the output of the marginal employee brings in as much to the

additional cost that his
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le that a producer will expand
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cost. (
ng that an employer will take on more labourers so long as the marginal product of the additional labour covers the additional cost.) The theory does, however, throw some light on why higher grades of labour earn more than less skilled labour; namely, because the marginal product of the former is greater than that of the latter.

The example given above of the effects of imposing a minimum wage by legislation, which shows why this tends to reduce employment, does, however, cast doubt on the wisdom of this policy in developing countries where a great need is to increase employment. It might work if it could be extended (and enforced) for all employments, in which case it might alter the distribution of the national income between the factors of production (on the assumption that this would be accepted, by necessity, by the non-labour factors). As things are, enforcement is likely to be limited to workers in the organized sector, thus increasing the gap between earnings in the two sectors, and forcing back into the unorganized sector some workers who might otherwise be employed in the organized sector. This is not to suggest that no effort should be made to improve the conditions of wage earners in industrial centres. It might, however, be more effective and less of a burden on industry to provide more welfare services (such as housing and workers' canteens) financed not solely by employers but by a broader section of society (e.g. the municipality, or from central or local taxation).

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[1] See F. C. Benham, *Economics*, 6th Edition, p. 362 *et seq.*

The price of labour (as implied in the above discussion) is the prevailing salary or wage in any occupation, adjusted in relation to the other advantages or disadvantages of each occupation. But the earnings of labourers (or workers) depend not only on rates of pay, but also on the amount of work done (e.g. the amount of overtime), and on the continuity of employment (per week, per month, per year). Moreover, whereas if the relative 'attractiveness' (cleanliness, heaviness of manual work, etc.) is taken into consideration as well as rates of pay, this (under competitive conditions) should lead to higher pay for unattractive work, in reality this situation is reversed. The least attractive work is worst paid. This follows because of the relative superabundance (in all countries) of unskilled labourers, the fact being that unattractive jobs in most cases require little skill. It is, therefore, normally unnecessary to offer good wages in order to secure workers for unattractive jobs. In developing countries, in particular, unskilled workers prefer such jobs, even at miserable wages, to no jobs at all.

The demand for the services of workers is (as it is for land) a derived demand; that is, it depends on the demand for their products (whether material goods or services), the prices of which depend (under competitive conditions) on demand and supply. This provides another reason why it seems unrealistic and unnecessary to bring in a special (marginal productivity) theory to explain the price of labour. It seems better to look upon marginal productivity as a main element determining demand.

Some of the fundamental facts accounting for the size and nature of the supply of goods and services in general have been mentioned in Chapter III. These also affect the supply of labour, in particular the size of the population and the proportion thereof able and willing to accept employment. Labour, like land area, is not 'produced'. But more or less labour can be attracted to sell its services according to the price (and conditions) offered. This means that either more (or fewer) people (for instance women, or the elderly) will be ready to enter the labour market, or that those already in the market will be prepared to work longer (or shorter) hours. In India and Pakistan, where un- and under-employment are endemic, it is normal for more workers to be available than can be fully employed at the prevailing rates of pay. This means that many are willing to accept temporary or discontinuous employment, or to take jobs which are less well-paid than those for which their abilities and training would qualify them, whilst yet others remain totally unemployed.

The number of workers willing to accept posts in particular occupations depends mainly upon the opportunities (including rates of pay) in other occupations.

Two other points affecting the price of labour are worth noting.

These are the influence of Trade Unions and what is called 'the economy of high wages'. Strong Trade Unions, through control over their members and restrictions on entry of non-members to particular industries, can exercise a degree of monopoly and raise wage rates (as already noted in Chapter IV). By the 'economy of high wages' is meant that under certain conditions it may pay a firm to raise wage rates above the prevailing level because so doing may improve the health, efficiency and attitude to their work of the employees, and lead to increased output per head (i.e. a higher marginal productivity). This, however, is less likely to occur where there is a high rate of labour turnover.

(*iii*) *Capital*

The capital of any economy consists of all its equipment and property which promote output, together with its uncommitted purchasing power (or 'liquid resources'), which has not yet been embodied in real capital. 'Liquid resources', such as cash and bank deposits, are those which are free to be used by their owners without or at short notice.

The volume of the real capital of any economy largely determines national output, partly because some capital equipment can produce goods which cannot be produced by unaided hand-labour, and partly because output per worker (in a given period) largely depends upon the equipment with which he works. The greater volume of output per head in advanced as contrasted with developing countries can be largely, but not entirely, attributed to the greater volume and better quality of the equipment of workers in the former countries.

The main types of physical ('real') capital are as follows: (i) Fixed capital, employed, for instance, in industry (including man-made improvements in land), trade (including transport and communications), and construction work; (ii) Circulating capital; i.e. stocks of raw materials and intermediate goods used up in the process of production, together with finished goods not yet on sale; (iii) Durable consumer goods, such as houses, cars and jewels, in the hands of consumers; and (iv) other consumer goods, held or stored by consumers.

Individuals reckon amongst their 'capital' stocks and shares, bank and other deposits or savings, and other titles to property. But such 'capital' is 'merely evidence of indebtedness'[1] (on the part of others to them), and does not form part of the nation's capital. It is, for instance, the physical capital (factories, plant, etc.) which results in output, which form part of the nation's capital: stock- and shareholders merely have a claim to part of the income derived therefrom

Physical capital goods can be bought and sold, their price depending—like that of commodities—upon demand and supply. 'Money' capital cannot be bought and sold, but can be lent, and interest is the price of a loan. There are many types of loans, and interest rates vary accordingly.

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[1] F. C. Benham, *Economics*, 6th Edition, p. 137.

The function of the rate of interest, under competitive conditions, is to ration scarce capital, and guide it into the most promising projects or directions. This does not necessarily mean the 'safest' projects. If promoters of a risky enterprise have faith in its prospects they are willing to pay a high interest rate for a loan. A loan, or bank credit, is necessary (unless the promoters can provide their own money capital) because expenditure on new plant, machinery, etc. has to be made in advance—and often long in advance—of production. Even after output starts it takes time before receipts suffice to cover operating costs and interest payments, and still longer before profits can be earned. A relative paucity of savings, and hence scarcity of money capital, is characteristic of developing countries, and, if growth is to occur, the need to provide an incentive to domestic saving (by offering high interest rates) or to borrow from abroad is great.

The demand for credit, or loans, depends upon the opportunities for profitable investment, recognition that they exist, and the presence of persons or firms able and willing to seize them. Supply consists of savings, in the hands of individuals, firms, banks or other institutions, who are willing to lend. The amount lent is limited not only by the amount of savings, but also by the savers' desire for 'liquidity': that is by the amount of the funds which savers wish to keep available for any sudden (expected or unexpected) call on them. The desire for liquidity varies greatly from time to time, increasing in times of uncertainty—whether as regards the economy as a whole, or of the lenders' business or domestic circumstances. This varies the supply of loan capital and the prevailing interest rates. Demand is limited by the fact that as more capital is combined with the other factors its physical marginal product tends to decrease, thus reducing the marginal returns to investment. In the absence of innovations the demand for loans might fall so greatly that interest rates might also fall to a level just sufficient to induce lenders to entrust their capital to others rather than to hoard it. In reality, inventions and innovations have tended to introduce new and profitable uses for capital, counterbalancing the former tendency.

Keynes,[1] however, laid such stress on the importance of 'liquidity preference' that he discarded the demand and supply explanation of interest. The basis of his theory is that the supply of money (consisting of the total amount of coins, notes and bank deposits) is determined by the banking system. This money, or loanable capital, is necessarily held by someone, and the rate of interest (or price) at which it—or part of it—is lent, is determined by the strength of the public's liquidity preference. In times of crisis or great uncertainty people will prefer to have immediate control over more money: their liquidity preference rises. They therefore sell securities, whose price will fall. This means that the fixed interest payable on securities rises in relation to their (reduced) capital value. The same thing happens if the banking system reduces the supply of money, which will then be insufficient to satisfy the demand for liquidity and at the same time permit as much lending as before. If the supply of money is increased, the holders of money can satisfy their demand for liquidity and yet lend more. They, therefore, invest in securities whose price will rise, so that fixed interest on such securities (in relation to their capital value) will fall. This theory, however, explains how interest is determined where there is a highly developed banking system, capable of controlling the credit and interest-rate structure, and where securities are important. In a developing country the sphere of control of the banking system is relatively small and does not embrace the whole economy. In India and Pakistan, for instance, monetary policy is found to be a very limited instrument. The demand and supply theory of the determination of interest rates, therefore, appears to fit the facts more closely, so long as it is remembered that 'liquidity preference' is one element affecting the supply of loan capital, at least in the modern sector of the economy. The appropriateness of demand and supply analysis in relation to interest rates in India is supported by a recent study undertaken by George Rosen (of the Massachusetts Institute of Technology). In his book on *Some Aspects of Industrial Finance in India* (1962) he analyses convincingly the effects of the establishment of special credit institutions on the demand and supply of capital for industrial projects in the private sector, and on the consequential rates of interest, illustrating his analysis by simple demand and supply curves.

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[1] In 1936 J. M. Keynes published his famous work *The General Theory of Employment, Interest and Money*, which effected what has been called the 'Keynesian Revolution' in economics. His works, however, should be read at a later stage.

(*iv*) *Business Promotion* (*or* '*Entrepreneurship*')

Business promoters are normally termed 'entrepreneurs' in economic literature. They are the individuals, or firms (including public authorities in planned economies) who take decisions by undertaking to promote and organize projects (thus bringing together the various factors of production), and are willing to bear at least some of the financial risks involved. In some cases the same entrepreneur both undertakes promotion (and organization) and risk-bearing, but more often (especially so far as large-scale projects are concerned) these two functions are undertaken by different individuals or groups. For instance, an entrepreneur may promote a new project, and perhaps thereafter be employed at a salary, or (if the entrepreneur is a firm) in return for a payment which may be a fixed annual sum or one related in a particular way to the progress of the project (for instance, profits earned). The risk (or 'equity') capital in this case is raised in the form of share capital, supplied by investors who do not themselves take part in promotion or organization, although they are represented on the Board of Directors which, as a body, is responsible for the firm's general policy. The investors are rewarded by a share in the profits (if such be earned), but run the risk of a loss of part (or all) of what they have subscribed.

In India and Pakistan a special method of promotion and organizing industry and trade, of which few examples can be found elsewhere, has been the Managing Agency System.[1] Although the influence of managing agents has recently been reduced even in India by restrictive legislation, this system continues to be of considerable importance.

In so far as business organizers are merely salaried and bear no financial risks, they cease to be entrepreneurs in the strict sense of the term. Risk-taking is rewarded by profits—the price of risk-taking. Profits consist of the residual revenue earned by a business after deduction of all costs of production, including provision against the loss, or reduction in the value, of capital equipment. Such provision is made by laying aside reserves, called 'depreciation', intended to cover the cost of real capital replacement within a period depending upon the estimated life of such capital. Estimates of the total depreciation necessary to maintain capital equipment intact are usually based on the original cost, or historical method. Some authorities maintain that a more realistic basis (in view of the fluctuations in the level of prices) would be replacement cost. To discuss the pros and cons of this continuing controversy would be beyond the scope of these pages. Included in the estimates of a firm's credits (or assets) and debits (expenses and liabilities) are stock appreciation or depreciation. Additions to stocks of raw materials, intermediate and finished (but unsold) goods, go to the credit side, and vice versa.

Profits are expressed in the form of an annual percentage return on the capital employed in industry and trade. They arise because of uncertainty about future situations and trends, arising from lack of knowledge, and from changes in supply (due, for instance, to technological and technical changes), changes in demand (e.g. in tastes and needs), and changes in the general price level. Uncertainty can never be eliminated, but some losses likely to be derived therefrom can be insured against—for instance, risks from fire or other damage to stocks or property. Here, again, the price system in the form of profit variations provides incentives (or disincentives) to entrepreneurs to take (or avoid) risks in changing the content of the national income, in accordance with changes in needs and tastes on the side of demand, and progress on the side of supply. In advanced countries the trade cycle, that is alternate periods of rapid progress (or 'boom'), and business stagnation (or 'depression') forms an outstanding risk element. In developing countries the trade cycle has tended to be less important in relation to risks of all kinds, although in some developing countries also (such as Malaya and Ceylon), which depend to a high extent upon foreign trade, and particularly the foreign demand (and, therefore, price) for a small number of exported commodities, the trade cycle has been of supreme economic importance. In India and Pakistan, in the past, the quantitatively lesser dependence upon foreign trade, and the more stable foreign demand for a number of their chief exports, have rendered the trade cycle less crucial. Nevertheless, India suffered severely from the world-wide depression of the 1930s,[1] whilst the prosperity of developing countries is always influenced (favourably or unfavourably) by prevailing conditions in foreign countries, exerted through their effects on the availability and price of imports and the size of markets and prices obtainable for their exports.

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[1] See Geoffrey Tyson, *Managing Agency* (1961).

C. THE DISTRIBUTION OF THE NATIONAL INCOME BETWEEN THE FACTORS AND THOSE WHO PROVIDE THEM

Economists discuss the problems of what determines the distribution of incomes between the factors, on the one hand, and between individual members of the population on the other hand. These must be discussed separately because many individuals derive their incomes from several sources. They may own and lease agricultural land (although the right to lease holdings has been greatly restricted in India and Pakistan by land reforms), earn salaries, receive interest from loans, and partake in the profits of businesses whose shares they own, all at the same time. The distribution of personal incomes is discussed in Chapter VII. Here something is to be said about the distribution of the national income between the factors of production.

The difficulty in this case is that the method of collection of statistical data on incomes, especially in developing economies, does not provide an adequate basis for classification according to factor-source. In advanced countries, such as USA and UK, approximate estimates can be secured of distribution between incomes from 'labour' and from the ownership of property (of all types), but even so it remains difficult to say of the class of 'self-employed' persons what proportion of their incomes should be attributed to their 'labour', how much to the earnings (in the form of interest and profits) of their property. In developing countries, such a much larger proportion of their populations is self-employed, especially in the agricultural sphere (but also in small-scale and cottage industries) that any estimate is bound to be a mere 'guesstimate'.

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[1] See Vera Anstey, *The Economic Development of India*, 4th Edition, 1952, Chapter XVII.

Benham provides an interesting summary of his conclusions on this subject.[1] For UK he takes the figures for 1958 of personal income before tax from the official Blue Book: 'National Income and Expenditure' (1959, Table 2), and assuming that the incomes of self-employed persons are derived half from work, half from the capital they employ, concludes that in that year the share of labour was 76 per cent, that of property 16 per cent, the remaining 8 per cent being accounted for by insurance benefits and grants made to individuals from public authorities. He then notes that if the undistributed profits of companies are added to incomes from property, the share of property (otherwise excluded from the calculation of personal incomes) would rise to 23 per cent. Allowing for the increased total sum of personal incomes, this would come to 71 per cent as the share of labour, 23 per cent as the share of property, and 6 per cent attributable to the items mentioned above.

Omitting the undistributed profits of companies, it appears that the share of labour in USA has also fluctuated around the figure of 75 per cent in recent years.[2] The percentage figures necessarily fluctuate from time to time, particularly because the share of profits tends to vary greatly as between periods of prosperity (when it is high) and depression (when it is low, and many firms suffer actual and sometimes large losses). Benham also asserts (without giving references) that in most underdeveloped countries the share of labour amounts to from 70 to 80 per cent. It must not be forgotten, however, that if allowance were made for the progressive (and highly redistributive) taxation in advanced countries, labour's position would be greatly improved.

Without pursuing these rather unreliable figures further, it can be said that they do highlight the much greater inequality of incomes in underdeveloped countries. For instance, the percentage of the population paying income tax in India and Pakistan is very much smaller than in UK; those who do not pay income tax cannot be supposed to own any considerable property (although the self-employed class, if not indebted, do own some capital); the percentage of the population depending mainly upon labour is much larger; the redistribution of income by taxation is much less substantial; and yet the share of labour as a whole in the national income is not very different. Each of the above statements deserves further elaboration, but all that can be said here is that although taxation is high in India and Pakistan, the greater part of governmental revenue is at present spent in defence and development, rather than upon direct assistance to the poorer classes. As development progresses, however, it is planned to alter this state of affairs.

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[1] *Economics*, 6th Edition, pp. 355, 356.

[2] See Paul A. Samuelson, *Economics* (1961), p. 571.

It will be noticed that in discussing the role and pricing of each factor in the present chapter the same conclusion has been reached in each case: namely, that under competitive conditions, whether for groups, or individual units, it all comes back to the interaction of demand and supply. Apart from a number of comments, explanatory of the feature of each factor, the discussion has not here been carried further. In view of what has been said in Chapters III and IV, however, the reader will realize that this 'conclusion' indicates the beginning rather than the end of this type of analysis.

For 'land' and 'labour', however, it has been said that demand is derived from the demand for the goods and services produced or provided by each, respectively. The main underlying determinants of the demand and supply of goods and services have already been indicated in Chapter III. Similarly, some account of the necessary modifications that must be introduced when the assumption that perfect competition prevails is removed, has been given in Chapter IV. Here it has also been shown that in studying the application of demand and supply analysis to particular cases, it is necessary to take into consideration the special circumstances and trends. It follows that to pursue the matter further entails detailed, and often quantified, analysis rather than further simplification and generalization.

Rates of interest (the prices of loans of varied types) are discussed more fully in Chapter IX, whilst both the nature of profits, and the activities and procedures of entrepreneurs form a substantial part of the chapter that now follows.

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CHAPTER VI

BUSINESS ORGANIZATIONS AND THEIR PROBLEMS

A. The Nature and Functions of Profits

B. Economic Problems of Business Enterprises

- (*i*) Introduction
- (*ii*) The Provision of Business Finance in the Private Sector
- (*iii*) The Scale of Production and Localization of Industries

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A. THE NATURE AND FUNCTIONS OF PROFITS

The businessman, or 'entrepreneur', is someone who brings together the various factors of production with the object of producing and/or selling goods (or services) in such quantities, at such prices, that will enable him, over some given period, to cover all costs and bring in a profit. He, therefore, takes the risk of financial loss if the enterprise should not prove successful. In advanced countries and the modern sectors of developing countries the entrepreneurial functions tend to be subdivided into (a) those who bear the financial risks (mainly the equity shareholders in a company as contrasted with debenture-holders and other creditors[1]) and (b) those who direct and manage the business. Even though the latter determine the policies upon which success depends, they may be rewarded mainly by fees or salaries, although normally the directors and managing directors (at least) also own some shares. In the present chapter 'entrepreneur' will, however, be used to include both groups.

In its broadest sense, then, a 'business' can be said to be any form of productive activity which depends upon markets for the sale of its products and the purchase of the means (or factors) of production. This would include a peasant-holding, if the peasant sells his surplus produce, and buys some of his means of production (for instance, implements, seeds, or fertilizers), even though he may be largely self-sufficing. It would also include a cottage, or other small-scale industry. It would, however, exclude the activities of all who merely sell, lease or lend one—or more—of the factors of production for which they command a price in the form of rent, interest, wages or salaries.

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[1] Equity shareholders are those who possess some of the 'shares' (i.e. the units into which the capital is divided) of a firm, in return for which they are entitled to a share in the profits when a dividend is declared (i.e. when it is decided to distribute part or the whole of the profits). Debenture-holders also own shares, but are entitled to an annual fixed percentage payment. The latter have thus made a loan to the firm, and the interest paid to them counts as one of the firm's 'costs', which must be paid (so long as the firm is not bankrupt) before profits are earned.

Peasants and small-scale industrialists do, indeed, bring together various factors of production and bear the risks entailed by dependence upon market prices, but in many cases their 'profits' (that part of their incomes attributable to their entrepreneurial activities) form only a small proportion of their total incomes. Many mainly self-sufficing small-holders, some of whom also carry on small-scale industries as part-time or 'off-season' occupations, fall into this category. Moreover, even where 'profits' form a significant portion of total incomes (in kind or in money) rural, including village, producers frequently fail to conduct their businesses in a manner consciously directed towards maximization of profits. Nor do they all even keep accounts in a manner enabling them to judge what profits or rates of profit have been earned. It follows that the outstanding problems and policies of 'entrepreneurs', and the main factors upon which the size and rates of profit depend, can be most clearly analysed and assessed by reference to relatively large-scale, modernized business units, utilizing considerable capital. The following pages, therefore, will be concerned with relatively advanced types of business, whose promoters consciously aim at the maximization of profits, and are not satisfied with merely pursuing a traditional mode of life. In economic literature this topic is usually known as the 'economics of the firm'.

The first feature of 'profits' to be stressed is that—unlike rent, interest, wages and salaries—it is a 'residual', as contrasted with a 'contractual' reward. The services of an entrepreneur cannot be secured by offering a given 'rate' of profit, as no one can forsee the future, and hence cannot foretell what rate of profit will be earned, or —indeed—whether there will be any 'residual revenue' whatever. If costs exceed returns the entrepreneur suffers a loss: if costs exactly equal returns he gets nothing for his efforts: if returns exceed costs, then (after deduction of expenses) the rate of profit can be expressed as a percentage on the capital employed. On the other hand, normal profits can be considered as in one sense a 'price'; that is, the supply price of an entrepreneur. It is only if an entrepreneur secures (in the longer-run) that level of profits which at a particular time in a particular case is considered to be 'normal', that he (or other entrepreneurs) will continue his investment (or will invest more) in a particular enterprise. Profit may, for some purposes, be estimated in relation to turnover, or per unit of output, but such rates bear no necessary relation to profit as a form of income, and it is the latter that concerns us here. The equity shareholders (that is, the owners of a company's ordinary shares) receive their profits in the form of dividends, declared at stated intervals, but the dividends distributed do not necessarily correspond with profits earned. Undistributed profits are used to form reserves held against bad years, and for 'ploughing back' into the business, and thus increasing the capital employed.

To estimate the rate of profits that would have to be earned in order to justify investment in a project is no simple task. Difficulties arise from two main sources: first, the varied nature of 'cost', and second, the period or periods of time under consideration (which itself is closely related to types of costs).

There are three main types of costs: (i) 'Once for all' capital costs; (ii) Long- and medium-term capital costs; and (iii) Operation or short-term costs.

(i) 'Once for all' capital costs are those that must be incurred before a business can begin to operate, but which will not have to be incurred again. For instance, if the firm takes the form of a company, there are all the preliminary costs of promoting the company and issuing its shares. Then, for certain enterprises, it may be necessary to build tunnels (e.g. for a railway), level the ground (before constructing the plant and other buildings), or lay pipe-lines (e.g. for oil). Normally such work need never be repeated, whilst the cost of repairs and maintenance will—according to the amount and duration of the work to be done—fall under headings (ii) or (iii).

(ii) Long- and medium-term capital costs, such as the construction of plant and buildings, the production or import of machinery, the provision of houses, etc. for staff, and the recruitment and assembly of labour, must also be undertaken before a business can operate, but the 'real' capital involved varies in durability, and must all—at varying periods of time—be replaced. 'Replacement', therefore, forms a continuing cost, for which allowance must be made, in the form of 'depreciation', throughout the life of the business, although the actual expenditure is discontinuous. The cost of replacement may change drastically if the general price level alters. In addition if techniques change and improvements are introduced, 'real' capital (such as machinery) may become obsolescent, which means that after a time it is no longer worth using. Then it has to be scrapped, and replaced by its modern equivalent.

(iii) Operational costs are those which are necessarily incurred whenever, and so long as, output occurs, such as the wages of labour, cost of raw materials, and the cost of lighting, heating and power. As a rule operational costs vary with output and the relation between capacity and output, but there is usually a minimum below which they cannot be reduced, even during a period when nothing is sold or even produced. For instance, it is normally more economic to retain at least a skeleton labour force, and to keep some machinery working, rather than to risk having to re-recruit (and train) a new labour force, or undergo the extra cost of restarting certain types of machinery—such as blast furnaces. If future prospects are good, it is often less expensive to produce for stock, rather than cease output completely.

The entrepreneur (whether an individual, a group, or a firm) makes his estimates in the light of the particular circumstances of each project, and is beset by uncertainty at every step. What will be the trend of prices in the future for his raw materials?; for replacing his machinery?; for his wage labourers? What quantities of each of his products, at what prices, is he likely to be able to sell over future periods? Will demand for his products be transferred to new or improved products?; will his machinery become obsolete before his profits have enabled him to pay for that machinery?

An entrepreneur will not embark on a project unless he hopes to cover total costs (including those incurred before profits begin to be earned) and to do so within a period during which his original capital, or power to borrow, will enable him to carry on until the anticipated profits begin to be reaped. The longer the period of 'preparation', and the more expensive the 'once-for-all' and long-term capital costs involved, the larger must be his capital resources and his power to await profits. Moreover, if and when profits are earned, in order that it shall be worth while for him to continue to maintain and replace his 'real' capital, the rate of profits earned must be at least equal to the prevailing normal rate of profits in the same industry or enterprise. Otherwise the cost of continuing to reinvest in that particular industry will become too high. This leads us to the concept of 'opportunity costs'. This tells us that the real cost of investment, whether in a new project, or by reinvesting (e.g. in machinery) in an existing business, is the other opportunities foregone. This enables the further generalization to be made that the cost of employing a factor of production in a particular direction is the opportunity foregone of employing that factor in some other direction, which explains the statement that the factors tend to move from one industry, or line of production, to another until—when equilibrium is attained—their prices reflect their opportunity costs. For instance, a cultivator's opportunity cost of producing rice may be said to be loss of the opportunity to grow (say) jute, so that he will tend to increase his output of rice until the marginal revenue secured by the sale of one more unit equals what he could have earned by the sale of an additional unit of jute. The entrepreneur tends to act on the same principle. If he can secure a better return (a higher rate of profits) by investing elsewhere, rather than in improving or maintaining the productive capacity of his existing business, he will make the change. In practice such transference often takes the form of switching over from major dependence upon one (formerly profitable) product to another (formerly of minor importance) rather than of completely abandoning a business, and starting a new one. For instance, as Professor Harold Laski was fond of reciting, during the serious depression in the Lancashire cotton industry after the First World War, his father (a prominent Lancashire mill-owner) contrived to make a handsome annual profit by gradually switching over from the production of medium and low quality cotton cloth, in the production of which Japanese and Indian mill-owners could undercut, to very high quality cloths which at that time could not be produced in Asia. Many even far-seeing, and well-placed, Lancashire mill-owners simply went bankrupt.

On the other hand it may well be that even if 'once-for-all' costs have not been completely paid for out of profits, the rate of profits obtainable from continuing to maintain and replace long-term 'real' capital and covering operational costs may be higher than could be secured by transferring current investment to some other business. In this case it would be worth while to write off, as unrecoverable loss, that part of the 'once-for-all' costs not covered by the profits earned, but to continue the business as before. The rate of profits considered to be 'normal' varies between the types of enterprises, in accordance with the risk entailed.

From the above account it can be seen that—except under a totalitarian economic system—profit represents a form of income that, if it arises at all, accrues unavoidably to those who take the risk of financial loss by promoting projects whose economic outcome, at the time of promotion, was uncertain, but has turned out successful ('profitable'). Under a totalitarian system, risk, uncertainty, and profit are, of course, not eliminated. The difference is that under totalitarianism the profit, or loss, accrues to or falls upon the State, instead of to or upon individual businessmen. The community (or nation) as a whole gains or suffers from this distinction only in so far as there is reason to believe that the State or the individual entrepreneur, as the case may be, is likely to make the best judgments, and (in case of loss) to check the losses most quickly.

It is, therefore, clear that—despite the tendency in some circles to use the term 'profit' as if it were a 'dirty word'—there is nothing either abnormal, immoral, or otherwise objectionable about profit or profit-earning. On the contrary, the profit-incentive plays an outstanding role in generating and mobilizing savings for investment in modern and improved forms of production.[1]

In India corporate bodies (in particular) have—since planning started—come to play an ever-increasing part in the generation of total net domestic product in the private sector, especially in the industrial sphere. In 1956–7, 'more than nine-tenths of the *industrial* potential and production of this country was within the corporate sector'.[1] In fact a large (and for manufacturing an overwhelming) share of the provision of capital (in the form of share capital, ploughed-back resources and loans from banks and other institutions) for modern projects has been provided or secured by the private corporate sector. For this the profit-incentive was essential. The only alternative to use of the profit motive (which should be accompanied by appropriate safeguards against abuse) would have been an extension of the public sector to embrace all such enterprises. But in most undeveloped countries the public sector is not in a position to undertake such far-reaching commercial functions. In 1958–9 almost 80 per cent of the gross capital of large and medium industries was in the private corporate sector in India. Similar figures are not available for Pakistan, but that the private sector is irreplaceable there is acknowledged by the policy of initiating new enterprises in the public sector, and subsequently transferring them to private firms.

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[1] Even Mr Khrushchev has been reported as saying that 'profit was not a dirty word any more: on the contrary, it could provide a useful guide to efficiency'. (See, e.g., *Evening Standard*, March 11, 1963.)

It can also not be denied that it is the most enterprising businessmen—those most willing to take risks, to innovate, to adopt new techniques and methods of organization, and in general to seek to plan and organize their businesses in the most efficient manner—who, if successful, make not only good profits, but the greatest impact on the economy, and pave the way for a general advance in national efficiency. For an increase in efficiency, i.e. the achievement of the maximum output at the minimum cost, is the outstanding contribution that a profit-seeking firm can make. The term 'maximum output' must be construed qualitatively as well as quantitatively. The most successful firms are usually those which achieve a reputation for sound quality—one's 'money's worth'—rather than for very low prices. Moreover, it is necessary to strive continuously for increasing efficiency. If a business is to continue to be successful under competitive conditions the 'one-time-only' innovator cannot for long reap exceptionally high or even normal profits. Indeed the pioneer may in the longer-run be at a disadvantage, because with the advance of knowledge and technology his rivals may start production with more efficient plant, machinery and organization than were at his disposal. Nations, as well as individual businessmen, have had this experience. Indeed the fact that the industrial revolution came first in Britain has often been held to explain why Britain later experienced great difficulty in maintaining her position in competition with her rivals who industrialized later. Similarly Japan's meteoric industrial success can be partially attributed to her late start. It is only if the efficiency of the business is fully maintained and developed that the rate of profits also can be maintained. It follows that the objective of maximizing net profits leads to the survival of those producers best able to expand or diversify output and reduce costs.

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[1] R. K. Nigam and N. D. Joshi, *Trends in Company Finance* (1960), p. 37. Also R. K. Nigam and N. C. Chaudhuri, *The Corporate Sector in India* (1960).

To reduce costs does not imply paying low wages or providing poor conditions of work. Experience has shown that labour efficiency, as measured by output per worker within a given period, can often (though within limits) be enhanced by raising wages and providing better conditions for health and work. To exploit labour breeds inefficiency, dissatisfaction, disloyalty, and unreliability, apart altogether from the inhumanity involved. Unfortunately where, as in India and Pakistan, there is widespread un- and under-employment, the economic costs of exploitation can sometimes be shifted from individual employers to society. Employers may be able to cast aside workers injured in health, spirit and efficiency, and secure fresh supplies from the countryside, thus providing an economic case for factory, public health and welfare legislation. This example also illustrates clearly the type of 'risk' run by employees. But this 'risk', though its implications are at least as serious as that taken by entrepreneurs, is different in kind and cannot be discussed here, except to point out that whereas social costs may be reduced by welfare legislation, minimum wage legislation requires careful handling. If industrial wages are raised above a level at which they can be counterbalanced by increased efficiency in the broadest, long-run sense, the cost of production will rise and tend to check industrial expansion and employment. This may increase imports or reduce exports and check improvement in national income and the standard of life. Moreover, the poverty of many families is so great that, even in the short-run, additional employment for a member of the family even at a relatively low wage may be more beneficial than lack of this opportunity accompanied by somewhat higher wages for those already in employment.

The possibility given above of the shifting of the cost of exploitation from individual employers to society is one example of a type of costs not yet mentioned: i.e. 'social costs'. The acts of individual employers may have adverse results the costs of which do not fall upon themselves, with the result that they do not include them in their costs of production. For instance, a factory may belch forth dirty, acrid smoke necessitating more frequent cleansing of clothes and household goods, the quicker deterioration of building materials, and discomfort (or ill-health) for dwellers in the neighbourhood. On the other hand social advantages may arise from certain economic activities, such as the introduction of transport facilities (e.g. railways) which may not provide normal profits on the capital invested, but which, nevertheless, may open up hitherto inaccessible rural areas, or increase the opportunities for profitable foreign trade.

Hence indirect social 'profits' may sometimes outweigh the direct losses (or lack of profits) made by a particular enterprise.

Social profits and costs are very closely related to what are called 'external economies and diseconomies'.[1] This still highly controversial subject cannot be pursued here, except to say that external economies and diseconomies arise if either the cost of production or marketability of a firm's products are affected by the actions of other producers or public authorities, and by other environmental changes, irrespective of any changes in the efficiency or policy of the particular firm under consideration. For instance, if the location of a steel plant (perhaps chosen for proximity to relevant raw materials) is at first remote from the market for steel products, but other firms (or the government) establish plant utilizing steel products in the neighbourhood, the cost of transport to at least part of the steel firm's market is reduced, as is also the firm's costs. On the other hand, the establishment of new industries in the neighbourhood of the steel plant may reduce the supply of labour for the latter, and increase costs by necessitating recruitment and provision of housing accommodation.

There is general agreement, according to Scitovsky, in two respects about external economies and diseconomies. The first is that external economies (and diseconomies) mean 'services (and dis-services) rendered free (without compensation) by one producer to another'; and second that 'external economies are a cause for divergency between private profit and social benefit' and hence for 'the failure of perfect competition to lead to an optimum situation'.[2] Beyond this there is no agreed analysis, nor agreement as to the importance of external economics. Nevertheless, it is claimed that the planning of investment can secure more external economics than would arise in its absence, which provides one argument for government economic action. Where external economics (or diseconomics) result in a divergence between private profit and social benefit, a case can be made out for differential taxation or subsidization in order to eliminate (or lessen) the divergence. For instance, if the value of a site outside an urban area is substantially raised by the construction nearby of a new industrial or town centre, so that the owner can reap a large profit by selling his property, it can be argued that the State (as representing the public interest) might obtain, by taxation, a share in the seller's unearned increment. Conversely, if the earning capacity of a firm, or the employment opportunities of workers, is lowered (or removed) by some public or private actions, it might be just to compensate those thereby injured, by (for instance) assisting them to move to another neighbourhood.

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[1] See Ed. A. N. Agarwala and S. P. Singh, *The Economics of Underdevelopment*, 1958. Article by Tibor Scitovsky, 'Two Concepts of External Economies'.

[2] See A. N. Agarwala and S. P. Singh, *op. cit.*, p. 295.

The above exposition of the economic functions performed by entrepreneurs is not intended to suggest that the profit-maker, as such, is necessarily meritorious, nor is it denied that in various countries, at various periods, cruel exploitation has been exercised by entrepreneurs, who in this context are usually termed 'capitalists'. The entrepreneur may just be lucky, or he may be cunning and corrupt. The argument here is that it is not 'profits' or 'profit-earning' that should be condemned, but dishonest practices and the misuse of economic power, which may lead to exploitation of employees and customers alike. Indeed, in some cases temporary shelter from competition, resulting in big profits, may lead to greater investment in an area than would otherwise occur, or even to the opening-up of a whole region. Nevertheless, the existence of monopolies and monopoly profits are danger signals to be ignored at great peril, although it is not only, or always, monopoly that leads to injustice and oppression. It is the manipulation for selfish purposes, by corrupt and underhand methods, of accidental and incidental economic advantages (often arising from social rather than economic circumstances) that undermines any economic system that is insufficiently provided with protective moral, legal, institutional and administrative armour. It remains true that only if individuals and groups save part of their incomes, and if businessmen secure a 'residual' over costs, resulting in both cases in productive investment, that the productive capacity of a nation can be increased and the standard of life raised.

But, clearly, not all enterprises are successful; whilst if a venture fails, this means financial loss for all shareholders and maybe also the creditors of a firm. In earlier times, before the introduction of limited liability ('limited liability' means that a shareholder is liable, if a company suffers losses, only to the extent of his contribution to the company's capital), and the development of company law, much hardship was caused to unwary investors in many countries. In India limited liability was introduced in 1857, and extended to all types of companies in 1855, whilst a satisfactory code of company law has been worked out more recently.[1]

Today company legislation in most countries lays down and safeguards (so far as possible) the rights of shareholders and creditors, insists upon accounts being kept in particular forms, and upon adequate auditing, and in general has gone far to eliminate the malpractices and wholesale losses which stained the records of joint stock companies in the past, and (in the case of India and Pakistan) of the managing agent system even in the present century. Apart from occasional stock-exchange speculation and crises (often accompanied by wide-spread scandals) failures in the private sector are nowadays normally limited in scope, whilst the prolonged survival of an inefficient private venture is unusual. On the other hand, in the public sector mistakes may be made on a larger scale, and an inefficient project may survive, at the cost of taxpayers, for long periods (and even more or less permanently). In addition it may prove difficult to attract enterprising men who have business 'flair' to serve in the (salaried) public commercial sector, whilst public service itself tends to foster caution and routine rather than initiative. This is not to say that it is never advantageous to promote industrial and other businesses in the public sector. Some purely economic advantages may be forthcoming, for instance in the external economy case, or where the State can take a longer view of profitability than the private entrepreneur.

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[1] See N. Das, *Industrial Enterprise in India*, 4th Edition, 1962.

One final word about the place of profits in the economic system. The existence of profits above the normal level in any industry (or other type of enterprise) is usually a sign of disequilibrium, although exceptionally high profits—not reduced by competition—may be earned by an exceptionally efficient entrepreneur. As a rule, however, abnormally high profits indicate a shortage of capacity in the relevant industry (or enterprise). Under competitive conditions the establishment of new firms (or expansion of existing firms) will reduce profits and restore the tendency towards equilibrium. Similarly, the prevalence of lack of, or subnormal, profits indicates excess capacity. This general 'rule' must, however, be interpreted to allow for short-run abnormally high or low profits during the boom or depression phases of a trade cycle.[1]

B. ECONOMIC PROBLEMS OF BUSINESS ENTERPRISES

(*i*) *Introduction*

It has already been noted how greatly businesses and firms vary in scale, methods of organization, techniques of production and even objectives. In the private sector of India and Pakistan, for instance, there are small individual businesses for whose owners profits form only a small part of total income; partnerships varying greatly in size; private (or 'closely held') companies, with a limited number of shareholders; joint stock companies (with limited liability) which often have subsidiaries; and giant companies or corporations (variously named) with widespread (and often international) business and financial interests, usually including a number of subsidiary companies and investments in independent firms. In addition the Managing Agent system, a special type of organization practically confined to India and Pakistan, became the predominant feature of the modernized sector in these sectors in the latter part of the nineteenth century. This system is one whereby a newly-established and formally independent firm enters into a contract with an already established firm, by means of which the actual management of the new firm is handed over to the established firm, which becomes its managing agent. In India these managing agent firms were at first British-owned, but the system was later adopted by Indian firms also. For a number of years managing agencies played an important and useful role in promoting, pioneering and financing new industries, and providing a continuous supply of experienced and efficient managers. Unfortunately, through their concentration of financial and policy-making power in the hands of a largely self-perpetuating group of prosperous families and individuals (secured through interlocking directorates and other commercial relationships), this led to a substantial degree of monopolization of entrepreneurship and industrial management, which also gave rise to malpractices at the expense of shareholders. Prior to recent company legislation, it was estimated that a mere handful of outstanding businessmen, through their large and varied ownership of shares, their influence as leading personalities in many large managing agent firms, and their large number of directorships on the Boards of other firms, in practice retained in their hands the reins of the greater part of large-scale industry in the Indian private sector.[1]

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[1] See p. 120.

In India, before and since Partition, company legislation, and particularly the Indian Companies Act, 1956, based largely on the British model, has gone a long way to reform former deficiencies and malpractices in the promotion, capitalization, and control of business firms, in particular with regard to the Managing Agent system.[2] Nevertheless it remains difficult for young men without 'connections', however intelligent and enterprising they may be, to secure the opportunities and experience necessary to enable them to rise to positions of responsibility and power in modern business in the Indian private sector. More opportunities are open to 'brains' in the public sector, but here the rewards are security and good salaries—not profits. Finally, in this connection, it can be noted that the activities of each type of firm are limited by appropriate provisions under company law, whilst different types of firms are treated variously for taxation purposes.

Owing to this great variety of circumstances, it is clearly difficult to generalize about the problems and policies of private firms in general, or as to what determines rates of profit. Each case can only be considered in relation to its own environment and circumstances. Nevertheless certain economic aspects of the problems and choices facing many firms do lend themselves to broad economic analysis, so long as it is remembered that particular circumstances always affect the applicability of the principles involved.

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[1] See Asoka Mehta, *Who Owns India?* 1950; S. L. Sharma, *Some Trends in Capitalist Concentration in India*, 1955.

[2] G. Tyson, *Managing Agency*, 1961.

The rest of the present subsection will first compare the problems facing enterprise in the private with those in the public sector. Then some special factors affecting business enterprises in India and Pakistan will be noted. Thereafter several topics of importance to many firms have been selected for separate consideration. One topic of great practical importance has been entirely omitted as beyond the scope of these pages. This is the question of labour relations.[1]

One great distinction between entrepreneurial problems and policies in the private, as compared with the public sector, arises from the variety of objectives that may be pursued in the public sector.

In the private sector, although there may be considerable differences between the energy and single-mindedness with which profits are pursued, the main objective remains to secure a residue of revenue over costs, and—within the limitations imposed by conservatism, ignorance and lack of initiative—to increase that residue. Examples of the limitations referred to above are first, that some entrepreneurs aim at maximizing the profits to be obtained by pursuing traditional methods and techniques on about the scale of output already attained. Second, the more energetic and ambitious may aim at substantial expansion of scale, and possibly at diversifying their products, but still fail to aim at improved techniques and organization. By contrast, the most ambitious attempt to discover and introduce innovations in advance of their rivals. Despite these differences in outlook, under competitive conditions each firm will tend to extend output until marginal revenue equals marginal cost: i.e. to maximize net revenue (or profits).

In the public sector, on the other hand, not only is it likely that an enterprise may be a monopoly, but also that the objective may not be to maximize profits. In India and Pakistan, for instance, enterprises in the public sectors are governed by planning objectives. These include the quantitative maximization of output, development, the redistribution of incomes, and the elimination (or reduction) of un- and under-employment. Allied to the objective of development is also that of securing revenue for the public sector. Policies to promote these objectives necessarily conflict, and either each objective must be pursued in certain directions (or for certain enterprises) only, or there must be compromise. This presents policy-makers with a complex set of choices. The types of policies most affected are price policies and the choice of techniques of production. The latter topic is discussed separately in Chapter XII B. Here we shall be mainly concerned with price policies. It may also be noted at once that policies selected for the public sector may also be promoted in the private sector by a

[1] See C. B. Kumar, *The Development of Industrial Relations in India*, 1961.

variety of methods, such as direct controls (e.g. prohibitions, quantitative controls, licensing) or through the price mechanism (e.g. by taxation, tax concessions, and price-fixing).

The first question to be decided for public enterprises (and services) is how they should be organized, managed and financed. The main type of organization adopted in many advanced and developing countries (and often found side by side in the same country) are departmental management (used especially for public utilities), public corporations, and companies.[1] As a rule the government is the main source of finance, and this can take the form of grants, loans or share participation. As in the private sector, loans may also be taken from banks or financial institutions (national or international). Where profits are earned, expansion can also be secured by ploughing them back. Agreements may also be made with foreign firms (or governments) for participation in a particular enterprise.

The objectives of the particular public enterprise must next be laid down, and suitable policy-measures chosen to promote them.

In most cases it is stated that a public enterprise should be run on 'commercial principles', but this means little more than that it should be run 'efficiently', in the sense that the most economic methods of attaining the chosen objective (or objectives) should be chosen. It does not necessarily imply that the aim is to maximize profits. As a rule it is held to mean that costs should be covered, although it may be decided that in the interests of development, or of certain consumers or users, prices should be consciously fixed at a level that does not cover costs. This simply means subsidization.

Most public enterprises are monopolies, in which case (as explained in Chapter IV) price can be fixed arbitrarily, the amount sold then being determined by the demand schedule; alternatively the amount produced can be fixed, the price then being either determined by the demand schedule, or fixed at a level that necessitates subsidization. In the latter case as demand exceeds supply at the fixed price, it is necessary to control distribution (for instance, by licensing). The great difficulty here is that, in the absence of competition, the main criteria of efficiency (survival and rate of profits) are removed. It is only if a public enterprise is one amongst competing firms that an objective test of efficiency can be secured.

It is with regard to what should be the price policy of a public monopoly that much controversy has arisen. To state the controversy concisely, without offering an opinion as to its solution (and indeed, the best solution may vary according to the objective in any particular case), it can be said that there are two possible criteria: (a) Price should be fixed on the principle of covering average costs per unit of output (including normal profits in costs). On the assumption that output will be sold, this will result in covering full costs, and reaping normal profits. (b) Price should be fixed on the principle of equating price with marginal cost. If costs increase with scale of output, this—as marginal costs by assumption then exceed average costs—will cover full costs and provide a profit. This profit will exceed that secured if average costs had been charged, and will involve higher prices. If costs tend to fall with scale of output, full costs will not be covered if price equals marginal cost, so that a loss will be incurred. It is argued that in this case, under competitive conditions, with firms tending to equate marginal revenue with marginal cost, the consumers would reap the advantage of lower prices, which should not be denied them by a public concern. Two things should be remembered in this connection. First, that decreasing costs as the scale of output rises cannot continue indefinitely. Eventually, marginal cost will begin to rise again, and will catch up in time with average costs, so that profits will re-appear. Second, enterprises in the public sector are likely to be started for industries in which a large-scale is advantageous, in which improvements are likely to be made, and may be faced with decreasing costs for quite a time. To charge average costs in such a case would be to check sales and exploit the consumer. On the other hand, where marginal cost is less than average cost, this suggests that an increase in scale would be desirable. It can then be argued that a price greater than marginal cost should be charged, with the object of securing profits which can be accumulated for further investment.[1]

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[1] For a description of their main features in a number of countries, see N. Das, *The Public Sector in India*, 1961.

Some special features of business enterprise in many developing countries are a scarcity of capital, a superfluity of unskilled labour, and limited markets for many modern manufacturing products. This clearly affects the choice of techniques and scale of industries. There is also said to be a scarcity of entrepreneurs, managers, technicians and skilled labour. It is uncertain how far there is really a scarcity of entrepreneurs, or at least of the ability required. It may be rather that, in the past, there has been a relative scarcity of openings for entrepreneurs, at least in the industrial sphere, as contrasted with opportunities for securing high profits from the purchase of land, money-lending, internal and external trade, and speculation in commodities and on the stock exchange. N. Das argues that the shortage of experienced managers is more serious than any scarcity of entrepreneurs.[2] The tendency towards the concentration of ownership and management of modern firms in a few hands in the private sector does, however, at present limit the recruitment of businessmen. It is highly desirable to open business careers to talented young men from all classes. Opportunities for scientific and technical training at all levels (domestically and abroad) are now being greatly extended in India and Pakistan, and should, before long, help to remove the relevant scarcities. Finally, it may be remembered that some of the long-established enterprises, founded by foreigners (especially in mineral and plantation industries), have depended largely on overseas markets and on imports of machinery and other requisites, with the result that multiplier action has been engendered abroad, rather than domestically.

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[1] The reader is advised to refer to Diagram IV in the Appendix to Chapter IV, to remind himself of the shape of and relationship between the marginal and average cost curves.

[2] *Industrial Enterprise in India*, pp. 165, 166.

(*ii*) *The Provision of Business Finance in the Private Sector*

The provision of business finance is a broad and technical subject discussion of which in any detail would be out of place in these pages. Some specifically economic problems facing businessmen which originate in this sphere may, however, first be noted.

On starting a new enterprise one of the first questions to be answered is how much capital will be needed to finance the business on the contemplated scale? Or, if preliminary investigations suggest that there are definite limits to the amount of capital that is available (or can be secured) the question may be what sized enterprise can be established with the available capital? Looking at the question from the former point of view, it is necessary to consider the various types of capital required (corresponding with the various types of costs), the various sources of finance likely to be available, the estimated period during which no (or very low) profits are likely to be earned, and what measures can be taken to attract share capital and/or loans. The answers to these questions will clearly vary with the special circumstances, including the contemplated scale of production, location of plant and choice of techniques. Hence the methods adopted in different industries and in different countries vary greatly.

Some firms aim at raising sufficient capital from the start to cover both all long-term and operational costs in the form of share-capital, debentures (i.e. long-term loans at fixed interest rates), and other loans (from, e.g. special financial institutions, whether national or international), the two latter normally being repayable at fixed dates. The danger here is that if production is for any reason delayed, or if profits begin to accrue later than anticipated, interest payments may not be covered by earnings, and repayment of loans may have to be made before the means of repayment have been earned. This may necessitate taking further loans, probably at higher rates of interest, which means that the firm may be 'over-capitalized', in the sense that overhead costs have been unduly raised. Hence—especially in countries where capital is relatively scarce—many firms do not attempt to raise all their capital requirements at the start, but rely on being able to issue more shares and debentures and to secure further loans at a later date. In particular all operational costs are often covered by bank overdrafts and other sources of short-term finance: this is very common in India and Pakistan. Here the danger is under-capitalization, in the sense that more capital (including finance for operational purposes) may have to be raised at inconvenient periods, when the money market is unusually illiquid, so that interest rates rise, or it is even difficult to secure free capital, overdrafts or other short-term finance, at any price. For instance, the Ahmedabad cotton mills have in the past relied largely upon the public and private deposit system to cover operational and even some longer-term costs. These deposits (which, of course, earn interest) have been withdrawable at short notice, and in times of (even quite temporary) crisis have been withdrawn just when it is particularly difficult to secure finance from other sources. This means that the mills have borrowed at short-term to cover longer-term liabilities.[1]

Another serious financial problem is posed by the fact that profits —by their very nature—fluctuate more, from time to time, than prices or payments (rents, wages, etc.) for the use of the other factors of production. In advanced countries the world-wide 'trade cycle'—that is alternating periods of prosperity and depression—forms an outstanding economic problem, so that much economic research and controversy have centred upon how to eliminate it and stabilize the price level. In India and Pakistan not only has the trade cycle normally had less far-reaching effects (as noted in Chapter V, p. 102), but since planning started new capital investment, especially in heavily protected industrial projects, has been continuous and at a relatively steady and increasing rate, with the results that profits have tended to be high and fluctuations of minor importance.

Nevertheless, even if the trade cycle is not of outstanding importance, profits do fluctuate, whereas most costs (e.g. interest, repayment of loans, replacement of real capital, and operational costs) have to be met either continuously or at more or less regular intervals. Hence systematic provision has to be made—irrespective of the prevailing rate of profits—for such important items as interest payments, the redemption of debt, and the replacement of outworn or obsolescent real capital. A very common method of dealing with this problem is for a firm to aim at more or less stabilizing the rate at which profits are distributed, adding to reserves (of various types) in good years, and subtracting from them in bad years. The replacement of real capital is provided for by depreciation reserves, although there are great differences (which cannot be dealt with here) in estimation of the requisite size of such reserves and the periods during which they are accumulated. The size of the necessary depreciation reserves and the anticipated length of life of real capital are estimated separately for each type of plant, building and piece of machinery. One controversial question, about which practice varies, is whether cost of replacement (and consequently the amount of the depreciation reserve) should be estimated on the 'original cost' (or historical) basis, or on the expected 'cost of replacement' basis. The difference between the two may be very great, depending as it does upon changes in the general level of prices and upon the nature and rate of technical change. The argument underlying the original cost method is that from the accounting viewpoint it is perfectly satisfactory to provide for the replacement of money actually spent, extra capital expenditure necessitated by a rising price level or technical changes being met in the subsequent period by appropriate changes in depreciation reserves and, if necessary, raising more capital. The argument for the replacement cost method is that what has to be replaced is the 'real' capital, whilst it is necessary for a progressive firm to purchase the most up-to-date and efficient 'real' capital. Here, as in many other respects, it is well to note that a policy suitable for advanced countries is not necessarily appropriate for a developing country. It may be that in an advanced country the extra cost of the most up-to-date plant and machinery is outweighed by the increased output at lower operating costs (for instance, the saving in labour costs), whereas in a developing country, the scarcity and hence higher cost of capital may outweigh any reduction in operating costs (for instance by employing less labour).

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[1] See N. Das, *Industrial Enterprise in India*, pp. 41, *et seq.*

(*iii*) *The Scale of Production and the Localization of Industries*

It is not easy for an entrepreneur to judge what, for his purposes, will prove the most advantageous size for his 'establishment' (plant, factory or farm) or firm (if this owns more than one establishment). The size of an industry as a whole also affects costs of production and profitability.

The choice of scale (or size) arises both for new enterprises and for those already established. The latter might benefit from expansion, contraction, or—either as an alternative to contraction, or as a method of expansion—from diversification of output. Special, and usually different, considerations affect the influence of size on the profitability of the 'establishment', the firm, or the industry respectively. Moreover, the optimum size differs when judged from the points of view of technique, management, finance, or marketing respectively. This necessitates some method of reconciling these points of view.

Many of the problems involved in the choice of size are essentially technical or practical business problems. The entrepreneur, or the manager, is in many ways in a better position than the economist to solve them. It is, however, doubtful how many—or how far—businessmen study such problems systematically. Many proceed by tradition, rule of thumb or trial and error. Some may possess a 'flair', which although it may serve them well up to a point, and for longer or shorter periods, may let them down badly from time to time. It is here that the economist may be able to help, if he both makes a systematic, analytical study of the conditions and policies promoting success over a wide field of 'establishments' and firms (perhaps covering several countries and certainly including a number of centres), and also studies the more individual characteristics of the particular enterprise. 'The on-looker sees most of the game.' The economist's broader outlook and relative freedom from hour-to-hour duties may enable him to perceive 'uniformities' hidden from the businessman. These may lead to a deeper understanding of the problems involved and enable him to form generalizations and suggest possible solutions. This explains why many (large) firms find it worth while to employ an economist as a member of the staff, or to establish an economic and statistical research department.

The existence, under very similar circumstances, of establishments and firms varying greatly in size, may often be accounted for by practical circumstances—such as lack of capital (and of access to capital)—which restricts choice. Once a start has been made it is not always easy to alter techniques or methods of management and organization.

The primary advantage of a large-scale is that it enables greater specialization which (as already discussed) enables many economies (e.g. of time, skill, materials and implements) to be secured. Nevertheless in a number of industries utilizing simple repetitive techniques (such as spinning) full technical specialization can be attained even by small 'establishments', which may continue to form the predominant pattern even in advanced countries. It is true that a firm may own a number of small (or even large) factories in such an industry, which may enable greater specialization in the spheres of management, finance and marketing, but many cottage and small-scale workshops may be under the control of individuals both ill-qualified to carry out management etc. on a larger scale, and satisfied with a modest rate of remuneration. In such cases earning efficiency may be increased rather by depending upon co-operative societies for financial and marketing services than upon an increase in the scale of production.

So far as 'establishments' are concerned, the outstanding advantages of a large-scale are found in the technical sphere. Some projects (such as oil refineries and hydro-electric installations) cannot be carried out at all without large plant and machinery. In other cases large plant and machinery are technically more efficient than smaller equipment. Again costs may be reduced by integrating in one plant successive stages in the process of production, which could be, and sometimes are, carried out separately by independent firms. For instance, the smelting of pig-iron from iron-ore, production of steel ingots, and transformation of the latter into semi-finished products such as bars, blooms, and billets, can either be carried out independently, or by vertical integration in one plant. The latter method can achieve great savings of fuel (by utilizing the products of one process whilst still hot for the next process) and in transport, in addition to which the by-products (such as gases produced by blast-furnaces and coke-ovens) can be used as fuel for the plants as a whole, instead of being wasted, if no ready and nearby market exists. Similarly the use of scrap-iron in the production of steel saves iron-ore and pig-iron.

Other advantages of a large-scale, affecting both 'establishments' and firms, are that bulk purchase of raw materials and transport in bulk are often obtainable at lower prices or rates.

There are, however, especially in developing countries, a number of factors which restrict the scale of output. Developing countries which are short of capital cannot afford to use labour-saving devices for all their projects, and for many reasons to do so would be extremely unwise. This topic—called the 'choice of techniques'—is discussed later in connection with planning (Chapter XII). The size of an 'establishment' is also limited by that of the local market, and by the cost of transport to other markets. Considerations favouring the location of certain processes in different areas instead of in an integrated plant, are (a) that where the raw material of an industry is bulky and weight-losing, the economics of processing on the spot (and thus saving transport costs) may outweigh those to be gained from integration; and (b) that where finished manufactures are extremely bulky and difficult to pack and transport, the economies gained by manufacture near the market may again outweigh those arising from integration.

Another check to expansion in the size of an 'establishment' is that where machinery is large and expensive, once output has reached full capacity, productive capacity can only be extended by adding another large and expensive machine, which, at least for a time, could only be worked at very low capacity. In other words the real capital involved is 'indivisible' (i.e. can only be added in very large units).

Several factors favouring large firms (as well as establishments) have already been noted incidentally. In addition large firms normally find it easier than small firms both to raise or borrow capital, and to plough back more capital (for modernization or expansion). It is also easier for them to obtain a monopolistic, or quasi monopolistic position, at least in certain industries or localities. They can also afford to employ experts and to undertake research. They may, too, find it possible and remunerative to establish factories (or works) to process raw materials or produce semi-manufactures which smaller firms buy from independent firms.

The principal sources of advantages to industries as a whole, from large size, are external economies which are greater if the industries are highly concentrated in particular localities. These external economies consist chiefly of greater transport, repair and credit facilities. Accessories and markets for by-products may also be more easily secured.[1] It appears, however, that most of these advantages can be secured just as well by the presence in the locality of firms belonging to other industries, so that the main advantage comes from being located in an industrial centre. The chief limitation on the size of an industry is imposed by the extent of the (domestic and foreign) market. In so far as external economies reduce costs of production, the possibility of extending the market is increased.

In the above discussion the terms 'size' (and 'scale') have been used quite vaguely, without reference to how size can be measured. It could be (and sometimes is) measured by different criteria, such as value of output, value of fixed capital employed or number of workers. Often the 'value added' by the 'establishment', firm, or industry, as contrasted with the gross value of output (a substantial part of which may in some cases, such as an oil refinery, be accounted for by the high value of raw materials purchased), is taken as the criterion of size. But, especially in developing countries aiming at an expansion of employment, the number of persons employed may be a more illuminating gauge, whilst it is still better to take into consideration the most relevant criterion for the particular purpose in hand.[2]

A further point worth noting is that diversification of products and interests tends to increase with the size of firms.[3] This is because there is a limit to the benefits to be derived from an expansion of output of any particular product, unless new technical knowledge reduces costs (and hence leads to an increase in demand) or there is an expansion of demand due, for instance, to the discovery of new uses, population increase, or a change in consumer tastes.

Reference has already been made to some relationships between size and location. In a more general way it can be said that the choice of location for a plant or industry usually depends upon (a) the costs of assembly (especially of transport) of raw materials and other necessary factors of production, including labour; in rural areas, for instance, a plentiful supply of labour may be available which does not require rehousing and may well be cheaper; (b) the cost of transporting the finished (or semi-finished) products to the main domestic and foreign markets; and (c) the advantages to be gained by locating the production unit in an industrial centre, less any additional costs which would be incurred by e.g. high site prices and rates. Clearly a compromise has to be effected. The cost of assembly of raw materials depends largely on their bulk, and whether or not they lose weight during the processing stage. Where, for instance, coal is the fuel used, because coal is both bulky and is normally completely used up during the processing, this is a strong reason for a site on or near a coal-field. Sugar-refining, on the other hand, requires fresh cane, and can only be undertaken within a certain distance of cane-production. Where the finished product is bulky and difficult to pack and handle, such as machinery and other steel products, this is a strong reason for location near the final market, and accounts for the lack of integration of all the processes of production of iron and steel goods in one plant in most countries. Some of the external economies that may arise from location in an industrial centre have already been mentioned (p. 124).

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[1] F. C. Benham, *Economics*, 6th Edition, p. 117.

[2] For an analysis of the relative sizes of the most important Indian industries in 1950, see 'Some Aspects of the Structure of Indian Industry' in the *Journal of the Royal Statistical Society*, Series A, Part I, 1956.

[3] See a reference to a recent Report on the UK Census of Production for 1958 in *The Times*, March 8, 1963.

Under planning in India and Pakistan there is much talk about the desirability of distributing large-scale industries between regions, States or Provinces. In the very long-run, if it is hoped to establish industrial growing-centres in a number of areas, and thus set the multiplier to work in such areas and not only in the chief centres already established, it is possible that economic advantages may emerge. From the economic viewpoint, however, it is preferable to choose projects for which there are specific locational advantages in hitherto neglected areas, rather than to locate projects which on other grounds it is desired to promote in areas which do not promise the greatest economic advantages. Otherwise there will be a waste of scarce capital resources, and increased productive capacity will be delayed. In some cases the choice of locality is made on political rather than on economic grounds, for which, no doubt, psychological arguments may be strong. But the cost should be counted.

Finally, so far as location is concerned, it may be pointed out that technical changes may alter the relative attractions of different sites. For instance, in the Ruhr, economies in fuel consumption reduced the consumption of coal by the iron and steel industry so greatly that it became less costly to establish iron and steel projects on or near iron-ore deposits rather than on or near coal-fields.

At the beginning of this subsection it was stated that the optimum size of an 'establishment' or firm differs when judged from the technical or managerial, or financial, or marketing criterion. The optimum technical size may require more capital than is available, or may produce more than can be profitably sold. Managerial ability may exceed what is needed for any one plant or factory of no great size, in which case a firm may establish several plants or factories, and may reduce costs of transport and marketing by locating these in different parts of a country. Marketing criteria, especially if exports are relevant, may favour a larger scale of production than the other criteria, but by no means necessarily so, especially for new industries which have to build up a market. The main point is that there is no reason why, except by coincidence, that the optimum size should be the same from all these points of view. It has been said that the usual method of approach to the problem of reconciliation of the various optima is 'by various devices of industrial organization, to put each different function of production and management on its own optimum scale, and to bring them together by a common control'.[1] A few examples only can be mentioned here. For instance, where the technical optimum is larger than the managerial optimum, the firm may be broken into separate departments, a number of plants being established each of which produces a particular product, each department being separately managed. Vertical disintegration is another way out. Similarly, if the marketing optimum exceeds the technical and managerial optima, vertical disintegration is again the solution. Finally, it may be noted that the power of a firm to cope with risks due to changes in demand may also be affected by the size of 'establishments' and firms.[2] In particular, although if a continuation of the demand over a considerable period for standardized products were to be experienced, it might prove profitable to construct expensive, highly specialized machinery, this might not be so should demand decline for any reason, or shift to new patterns of the same product. It might prove impossible to adapt the specialized machinery to new patterns or products, and great capital loss might be incurred. Similarly, if demand is cyclical or seasonal, the highly specialized and unadaptable machinery might have to be completely laid up for considerable periods. In such cases it may be possible and more profitable to introduce machinery that is more easily adapted to a change in demand, because it is less mechanized (or automatic), and can be adjusted when required, with relatively inexpensive fittings for particular purposes. It is normally the large firm or establishment that is more highly specialized in equipment, with the result that smaller firms can more easily reorganize and re-equip. As has been well said: 'The smaller firm may be never so well adapted, but will be never so ill adapted, and will enjoy, therefore, a certain advantage where changes of product are frequently necessary, and reorganization is expensive.'[3]

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[1] See E. A. G. Robinson, *Structure of Competitive Industry*, 1st Edition, 1931, p. 107.

[2] See E. A. G. Robinson, *Structure of Competitive Industry*, 1931, Chapter VI.

[3] *Ibid.*, p. 86.

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Part III

ANALYSIS OF THE ECONOMY AS A WHOLE ('MACRO-ECONOMICS')

CHAPTER VII

MEASUREMENT IN ECONOMICS

A. The Importance of Measurement
B. Methods of Measuring National Income

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A. THE IMPORTANCE OF MEASUREMENT

We have often referred earlier to various general economic laws. For example, as prices rise, demand will contract, or, as investment increases, employment and national income will rise. Such general relationships form a valuable analytical framework but, to be of practical use in making decisions, whether of the individual entrepreneur or of governments, we must be able to translate these general relationships into more or less precise quantitative terms.

The entrepreneur, for example, needs, ideally, to know the price elasticity of demand for his product, so that he can tell how his receipts will vary as he changes his price. Price elasticity of demand may be defined, for small changes in price, as

$$\frac{\%\text{ change of amount demanded}}{\%\text{ change in price}}$$

If this fraction is equal to more than one, showing a more than proportional response on the part of consumers to a change in price, it will pay the entrepreneur to lower his price. If, however, it is equal to less than one, showing a less than proportional response on the part of consumers, it will pay the entrepreneur to raise his price.

Similarly, some knowledge of the income elasticity demand is of great value to the entrepreneur in showing what will happen to his total receipts as incomes change. The income elasticity of demand is measured by

$$\frac{\%\text{ change in amount demanded}}{\%\text{ change in income}}$$

This fraction can sometimes have a negative value, in the case of staple foodstuffs, where, as income rises, consumers purchase less and change to a preferred substitute, e.g. wheat in place of rice, or rice in place of millet. If it has a low, although positive value it shows the producer that he cannot hope for much gain in receipts from higher income levels; if, however, it has a high value, the outlook from a rise in consumers' income is good. Attempts to compute these elasticities may be made either from aggregate market statistics or from family budget studies. For price elasticity, it may be observed how total demand rises or falls with price changes. It may be easier, however, to eliminate the effect of concomitant changes in income or the price of other products, if the budgets of certain families are studied in some detail. Similarly, for the income elasticity of demand, it may be observed how total quantities demanded change with the level in national income. But, again, it may be easier to abstract from price changes, both of the commodity concerned and of its substitutes, by studying the budgets of individual families.

It is important for governments, as well as for individual entrepreneurs, to know the price and income statistics for important commodities. If the price elasticity of demand for certain foodstuffs, for example, is low, a large change of price will occur if supply changes. This may lead to alarmingly high prices, indeed inflation, in the case of a bad harvest; so that, from a practical point of view, a government wishing to avoid inflation would try to have stockpiles of food in readiness to meet such a situation. Similarly, if income elasticity of demand for food were low an increase in national income would mean a relatively lower increase in the demand for food and hence a drop in *relative* agricultural income per head, provided the same numbers stayed on the land. In other words, there would be an economic incentive for people to move off the land, and the Government would be committed to seeing that the capital was available to co-operate with labour in creating new jobs off the land.

Methods of calculating total national income are dealt with in the second part of this chapter. Here, we will deal with various sub-totals which can be of great economic significance. The value of total agricultural production, for example, from which can be calculated productivity per man, is of the greatest interest in showing how far a country has gone in being able to feed its people from domestic resources. As always, a series of statistics for several years is desirable, so that any trend in growth may be observed. In a largely subsistence peasant economy, that is where much food is consumed by the families who grow it, an important problem of valuation arises. The produce may be valued either at retail prices, i.e. at what it would fetch if purchased by the ultimate consumer, or at wholesale prices, i.e. either what a merchant would pay who was purchasing 'on farm' or what a merchant would pay at the nearest market, whichever is the local custom. The retail price method is only to be preferred if we wish for a measure of the welfare of the farmers as consumers. If this is not our primary interest, the wholesale price method is better, since it shows the direct contribution of the agricultural sector to national product, excluding the cost of distributive services, i.e. without assuming that any distributive services have in fact been performed, i.e. any real resources used in distribution.

It is also important to know the total production of other sectors, viz. the industrial sector and the sector providing services. In each case we can then divide the total production by the numbers employed, in order to obtain a figure of productivity per man. If it appears, for example, that this productivity is higher in the industrial sector than in the agricultural, we have an indication that labour should shift out of agriculture into industry. National income will be maximized when the marginal productivities of all factors of production are the same in every case. Assuming diminishing returns, as labour moves out of agriculture, its marginal productivity therein will rise, while as more comes into industry its productivity will fall, until the two are equated.

In order to make calculations of productivity, of course, employment statistics are needed, as well as those of production, and these may be less easy to collect and interpret than appears on the surface. This is especially true in agriculture, where the work of women and children must be equated with that of whole-time men, and where some allowance should be made for under-employment. If, for example, one man works fewer hours in agriculture than in the normal working year in industry, this fact should be allowed for in the figures if they are being used to compare output in the two sectors. It is also common for farmers to have subsidiary occupations, such as trading or handicrafts, and very often the forms of the Census of Occupation make no provision for recording these, so that estimates must be made. It is common, also in Census statistics, for it to be assumed that children under the age of fifteen have no gainful occupation, which is often a distortion of the facts. Statistics of agricultural employment, then, should never be taken at their face value until it is known how these various points have been dealt with.

Besides knowing the contributions of the different economic sectors to the national income, we also need to know the income per head of population, and how it is changing over time, since this gives us the best measure we have of material welfare and progress. If, for example, population is rising faster than national income, material welfare is falling. Besides a crude figure of the arithmetic mean of income per head, we also need to know the distribution of income amongst different income groups and economic classes. For purposes of welfare, the mode (the amount that *most* people receive) is of more significance than the arithmetic mean, i.e. what the (imaginary) average man receives. It is possible for *modal* income to be higher in a society where national income per head is lower than in where it is higher. Apart from considerations of welfare, knowledge of the distribution of the national income is necessary in order to tell us how much, in total, is likely to be saved, and how much spent; in general the richer classes of the population save, and perhaps invest productively, a higher proportion of their incomes than the poorer. Knowledge of distribution is also needed to formulate fiscal policy; to know the yield to be expected from different rates of income tax, or from a profits tax or a land tax.

For many problems of measurement, for example, changes in production, prices and employment, we use *index numbers*. That is, we take a certain year as a base and call the quantity of goods produced, for example, in that year, say 1950, 100. If production rises by 12 per cent by 1955, the index for 1955 becomes 112. The problem, of course, is how to aggregate all the many different goods that are produced, whose trends in production may even vary in opposite directions, into a single figure. We have to do this by *weighting* each item; if, for example, steel and steel products accounted for 50 per cent of the value of total output and textile products for 25 per cent, then we would give steel double the weight of textiles in our calculation. If, for example, steel production had risen by 10 per cent and textile production by 20 per cent, the relevant figures for final averaging would be 10, 10 and 20, giving an average of just over 13. The same principle applies to the aggregation of employment changes, where the amount, and perhaps direction, of change will differ from one industry to the next. In this case, we weight the figures according to the numbers employed in each industry. Similarly, in constructing a price index, to show how the value of money has changed over a given period, we must weight the price of each commodity by the importance of that commodity in total expenditure. Naturally, figures will not be available for all prices, so it is common to collect figures of certain basic commodities for this specific purpose. The construction of a cost-of-living index, for example, is normally preceded by family budget studies to discover what importance different commodities have in the expenditure of the average family, or the average family in a certain income group. This survey allows both the selection of the commodities whose prices are to be included, and the discovery of their appropriate weighting. A word of warning must be added against becoming too addicted to the use of index numbers; should production rise by 50 per cent over ten years, for instance, this looks like a very impressive achievement. But what it means in real terms depends, of course, on the absolute level at which production started. A 50 per cent rise might still leave production, and productivity, very low in relation to needs. The presentation of single items in index number form, therefore, must always be regarded with a certain caution.

For planning purposes, it is necessary to form some estimate both of investment as a percentage of national income, and of the value of the investment multiplier. This latter figure tells us by how much total income will be increased as the result of an initial injection of investment, whether by government or by private firms. It is the reciprocal of the marginal propensity to save. Thus if, out of an additional increment of income, 90 per cent is spent on consumption and 10 per cent saved, the investment multiplyer will be $1 \div \frac{1}{10} = 10$. In other words, for every rupee invested, income will be increased by another 9 rupees. If we can assume that employment is uniquely correlated with income, i.e. that there is no increase or decrease in productivity, we can say that the employment multiplier will also be equal to ten, i.e. that for every man employed on the initial investment works, another nine will be employed throughout the economy. Marginal propensities to consume and to save can probably best be derived from budget studies, which can compare the different percentages saved and spent at different levels of income.

For intelligent planning, it is also essential to make estimates of any inflationary or deflationary gaps. An inflationary gap is measured by the amount by which intended investment exceeds intended savings. A deflationary gap reflects, on the other hand, the amount by which intended saving exceeds intended investment. Should intended investment exceed intended savings incomes will be pulled up, so that more, in fact, will be saved, since incomes are higher than anticipated. Should intended savings exceed intended investment, however, incomes will fall, because of the fall of consumption expenditure, so that, through the lower profitability of investment because of depressed demand, investment will also fall. The first state of affairs, where incomes, employment and saving are being pulled up through the excess of planned investment, is thoroughly desirable in an under-employed economy; it will result in unemployed labour or capital being put to work. Where there is full employment, however, the mechanism can only work itself out through increased *cash* incomes, unaccompanied by any increase in goods and services (at least in the short-term, where the productivity of labour remains the same). In such a case, deflationary checks, such as taxes on expenditure, or a government budget surplus (receiving more in taxes than it spends), may be considered desirable. If a deflationary gap appears likely, it is, conversely, the correct policy to budget for a deficit (spend more than revenue brings in), and to try to stimulate expenditure. The best measure of intended investment is probably industrialists' orders for equipment, if these can be assessed by sample survey; while the best measure of intended saving is likely to be simply the income distribution of the population, combined with past knowledge of their habits, together with any special features such as the level of the rates of interest, or the state of economic or political uncertainty, which may have a substantial effect on the propensity to save.

One final example of a necessary measurement is that of the propensity to import. Poor countries tend to be short of foreign exchange, in relation to their requirements. They wish to import capital equipment, and sometimes food, to a value greater than they can earn by their own exports, mostly of primary products. Some of this deficiency may be filled by grants and loans, but it is unlikely that all can be filled in this way. It is, therefore, necessary for planners to know what percentage of an increased income is likely to be spent on imported goods. If this percentage is too high, in relation to earnings from exports, import controls either by tariff or by quota may have to be imposed, so that these imports which are the most urgent in terms of economic development can assuredly be paid for. This propensity to import can be obtained by studying past statistics, to see how rises in national income have been correlated with both total imports, and imports from particular foreign countries.

B. METHODS OF MEASURING NATIONAL INCOME

In considering how to measure the 'national income' of any country it is first necessary to define what is to be measured.

What we want to measure is the total net output of all the factors of production of the country—the goods and services of every type produced over a given period (by convention, a year). Part of this flow of goods and services consists of consumption goods and services, part of investment. The term 'net' is inserted because in order to measure the addition to capital equipment (or 'net investment') made during the year, it is necessary to make allowance for the repairs made to, and deterioration of, the nation's existing capital equipment (i.e. 'depreciation').

Measurement of the net domestic output (the goal mentioned above) is necessarily complicated by the existence of international economic transactions. Here we will first consider the case of a 'closed' (or isolated) economy, and will later show what allowance should be made for international transactions.

A measure of the 'net social product', if repeated annually, will enable us to judge whether, and at what rate, output is changing. The inclusion of a sectoral classification enables us to trace the sources of output trends, whilst it is also useful to secure figures showing what proportion of the total is consumed, what invested. The determination of 'net social output' is an approach from the side of production.

A second possible approach is from the side of 'income', as everything produced forms income for either individuals, firms (and other groups), or public authorities (although, as indicated below, only certain governmental receipts can be included in the national income without double counting). This is because it is production (of all types) that generates incomes for the factors of production in accordance with their roles in the production process. The national income, according to this approach, consists of the sum of the earnings of labour, interest receipts, dividends and rents, together with the 'undistributed profits' of firms. The latter must be included because when some profits are not distributed this amounts to compulsory saving by the shareholders. This saving represents an addition to the capital of a firm, and hence increases the capital value of the shareholders' assets. Public enterprises are treated, for national income purposes, in the same way as firms in the private sector, so that their profits and (net) interest receipts are also included in the national income. As the earnings of all the factors of production are necessarily owned by someone, the total of all incomes (including undistributed profits) is only another way of arriving at 'net social product'.

Once again, everything produced is bought for consumption or investment (or maybe 'bought from himself' by the producer), so that consumption expenditure by individuals and firms (including public enterprises), plus their net investment, equals both 'net social product' and 'total personal incomes plus undistributed profits'. The difficulty here in a country with a large traditional sector is to discover how much producers have 'bought from themselves'. This forms the expenditure approach. It is clear that these three approaches, or definitions, of national income refer, in a closed economy, to identical totals, provided the necessary data can be obtained.

One point may be made at once: i.e. that it is not necessarily the saver who 'invests', at least productively. If, for instance, a peasant purchases jewellery as a liquid form of capital, the seller of the jewellery may invest the receipts from his sale. Or, if savings are deposited in a bank, then the bank may either increase its own investments, or lend to a would-be investor. If a peasant simply 'hoards' currency, this can only be looked upon as an investment that yields no interest or profits, and should not be added to 'net investment'.

These three approaches correspond to three possible methods of measurement: (i) the production or inventory methods: an enumeration and totalling of all goods and services produced; (ii) the income method: the addition of the incomes of individuals, firms and public authorities (in so far as no double-counting is involved); and (iii) the expenditure method: the addition of all expenditure on consumption and net investment.

The third method is not in practice used except as a check on the results of the other methods, or as an indirect supplement (in some cases) to fill gaps.

In carrying out the measurement of national income (by any method) difficulties arise from the following sources: the inadequacy of data; the deficiencies of monetary measurement; the need to avoid double-counting; the activities of public authorities; and the existence of international trade and other economic transactions with foreign countries.

No country has completely accurate and comprehensive data, but advanced countries have far better data than undeveloped countries. Britain has official, plus some unofficial, data covering the incomes of the bulk of the population. The Ministry of Labour compiles information on wage-earning, whilst the income-tax returns cover a large proportion of the rest of the population (including firms). The remaining 'gaps' can be filled by indirect estimates derived (for instance) from records of retail sales and particular channels of saving. This tends to greater accuracy than can be secured in undeveloped countries where datum on incomes is much less full, but the other difficulties mentioned above arise whatever method of measurement is adopted, and will be discussed in general later.[1]

In undeveloped countries many figures necessary for the income method are either lacking, or cover only a small proportion of the population. So also are some of the statistical compilations (such as Censuses of Production) which are available in advanced countries which rely upon the production method. Recourse is, therefore, made to a 'mixed' method: i.e. the inventory method (especially for agriculture) but utilization of whatever data on incomes happens to be available. In most cases much of the data needed for the inventory method is absent, and has to be sought by special sample inquiries or by indirect means. Even the official figures of agricultural (and others) output may be far from accurate.

India, for instance, has less than a million income-tax payers, and only a few million workers in organized industries. The production method is, therefore, used for the agricultural sector. Figures of recorded incomes have been used where available, but many special inquiries have had to be carried out (usually on a sample basis) to estimate the incomes of many classes of non-agricultural earners. Pakistan pursues similar methods, but both countries—despite substantial improvement in statistical data of all kinds—have still to face many gaps and inaccuracies, even for the most fundamental figures.

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[1] On the methods pursued in Britain see F. C. Benham, *Economics*, 6th Edition, Chapter IV, and J. R. Hicks, *The Social Framework*, 3rd Edition, 1960, Chapter XIV.

Inaccuracy can also be attributed to the special conditions in the 'traditional sectors', some of which have already been mentioned. For instance, in India and Pakistan the unpaid services of wives and other relatives or dependents are excluded (as their services are considered to be unmeasurable), although they (probably) play a much larger role in undeveloped than in advanced countries. *Per capita* income figures have also suffered—except for Census, or near-Census years—from the unreliability of the figures of population growth. Another point is that an estimate (on very slender grounds) has had to be made of income from house-property (and some other miscellaneous items) which 'cannot be specifically identified with any particular set of occupied persons'.[1]

The next difficulty facing the measurement of national incomes is that monetary values have to be used. The income and expenditure methods necessarily adopt money values directly, whilst the only way of adding up quantities of different goods and services is in terms of money. Objection is sometimes taken to the quantification of services rendered through the medium of the prices (or rates of pay) obtainable by those who render such services. The same objection might, however, be raised in relation to goods. The fact is that the social valuation (or prices) placed on goods and services alike can only be measured by the relations between demand and supply (i.e. relative scarcity in relation to effective demand). 'Intrinsic utility' does not come into the picture. These are 'facts of life' which, if considered to have undesirable, unjust results, can only be altered by specific measures.

The main defect of monetary measurement is that the measuring rod itself—the general level of prices—is liable to change, whilst there are also constant variations in the relative prices of particular goods (and services). This means that if net social output in a particular year, expressed in terms of current prices, is compared with that in another year, after there has been a change in the level of prices, the result may be extremely misleading. Without correction for price changes, no true trend can be discovered. This difficulty can only be overcome by the use of Price Indexes, which can eliminate (as far as possible, for no perfect Index can be constructed) the effects of price changes from one period to another. How this can be done has already been explained in Section A of the present chapter.

Another difficulty is whether, in pricing agricultural produce (in pursuing the production method) to choose retail or 'off-the-farm' prices. If, as is often done in the first place, retail prices are chosen, these include indirect taxes, and the national income is said to be 'at market prices'. This overvalues output (as the imposition of taxes necessarily raises prices)[1] so that indirect taxation must be deducted in order to measure the value of the relevant output. The national income is then said to be 'at factor prices'.

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[1] V. K. R. V. Rao, *The National Income of British India, 1931–2*; 1940, p. 32. Mr Rao's estimate may be called the first 'modern' estimate for India, and his method has been largely followed ever since.

Constant care has to be exercised to avoid double counting. This arises with regard to the treatment of indirect taxation, and will be discussed below in connection with problems arising from the activities of public authorities. Before doing so the point must be stressed that in using the production method the value of the output of individuals and firm must be taken at 'net value added', to avoid counting more than once the value of raw materials and intermediate products bought by one producer from another. 'Net value added' means that in valuing the output of any firm (or individual trader or producer) the cost of goods purchased must be deducted from the gross value of the output of the firm (or individual) before estimating the value of the work done (output) of the particular firm (or individual). For instance, a cottage tanner buys hides, tanning materials (lime, bark, seeds, oils, etc.) and fuel before he can start tanning. The value of all these articles has already been included in the 'product' (or 'income') of those who produce them. It has been estimated that raw material and fuel form no less than 57·2 per cent of the sale price of tanned hides.[2]

The activities of public authorities raise very many measurement problems, especially that of avoiding double counting, but only a few examples can be discussed here.

One of the most important is that of 'transfer payments', which occur on both sides of the account. On the one hand transfers are made by members of the public, through taxes, dues, etc. to the government or other public authorities. On the other hand public authorities make transfer payments to the public in general, or to particular classes, by way of subsidies, grants of various kinds and services such as free primary education, water supplies, etc. Similar transfers may be made by individuals to relatives or friends.

The general rule is that where transfers of income are made for which the recipients make no return in goods or services, these sums should not be included separately in the national income.

Let us consider tax transfers first. Incomes subject to income tax (and other direct taxes on income and capital) are included at their value before tax in the national income. To include direct tax revenue as government (or public authority) revenue would be double-counting. It is correct to include incomes before tax as personal (or business) incomes because they have arisen entirely from the earnings of the factors of production.

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[1] See Chapter IV, Diagrams IIA and IIB.

[2] Kedarnath Prasad, *Technological Choice under Development Planning* (Bombay 1963).

Arguments as to the correct treatment of indirect taxation are more complicated. In this case the taxes raise the prices of the taxed commodities or services purchased by consumers and thus overvalue the output of producers and sellers. If—as explained above—it is desired to value output at 'factor price' rather than at 'market price', the taxes must be deducted from the value of output. The usual argument is that indirect tax revenue should also be excluded from government revenue in estimating national income, because the income generated in return made for this transfer payment by tax payers consists of the services performed by public servants paid from such revenue, the value of which is estimated 'at cost': i.e. their wages and salaries. But these have already been included separately in the national income.[1] In general, all output or income engendered by the expenditure of public revenue on administrative and similar services is measured by the earnings of those employed, whilst that derived from public investment in commercial operations (such as the railways, nationalized industries, or loans to private enterprise) is measured by the profits or interest secured, as the case may be.

Another example of a 'transfer' is that provided by a public domestic loan for productive purposes (in the widest sense). This is a particular form of investment for those who contribute, which transfers the power to invest from private savers to the government. Such investment must not be counted twice at the investment stage. Interest on 'productive' loans appears as income of those who subscribed to the loan, and must be deducted from the earnings of the commercial ('productive') undertakings of public authorities, so that only 'profits' are included in public revenue for national income estimation. Where the earnings of such undertakings do not suffice to cover even the interest due to subscribers, public '*profits*' become a negative entry.

Interest on war loans also appears as income of subscribers, but there are no 'earnings' from which it can be deducted. Hence 'while companies are left with a positive remainder (of undistributed profits) after paying out interest and dividends, the government has a negative remainder which it subsequently covers by taxation'. The Indian case is complicated by the fact the 'Internal Public Debt' covers productive and unproductive debt alike.[2]

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[1] Not all economists accept this view.

[2] J. R. Hicks, *The Social Framework*, 3rd Edition, 1960, p. 157. Here Prof. Hicks is writing specifically of the British National Debt, which he assimilates with war debt. V. K. R. V. Rao discusses this point for the year 1931–2 on p. 182 of his book on *The National Income of British India*, 1931–2.

The transfer payments from public authorities (or private individuals) to members of the public, without return from the recipients, have been paid for out of tax (or by the private donors). Such 'free' services or benefits have been provided by public servants, and should be valued 'at cost', that is the cost of the services of the latter. The latter incomes have, however, already been separately included in the national income. There are many other instances of adjustments that have to be made to secure a correct estimate of national income, which cannot be enumerated here.

Finally, there are the modifications to be made on account of international trade and other economic transactions with foreign countries.

In an 'open' economy part of the domestic product of goods and services, visible and invisible, is exported and should thus be included in the national income, although this part is not available for domestic consumption or investment. But imports are received in return, so that the value of what should be added (or deducted) on this account to (or from) net social product depends upon whether the value of exports exceeds or is less than that of imports. Hence so far as trade is concerned the value of net social product equals retained net domestic output plus exports minus imports. So far as India is concerned under planned development the value of imports exceeds that of exports, so that the difference between the two has to be deducted. Here the difference caused by international economic transactions in general, between 'net social product' and 'total goods and services available for consumption or investment' must be stressed. Where, as in India, the value of products and purchasing power received greatly exceeds that of products and purchasing power paid to foreign countries, the result is that total 'goods, services and purchasing power available for consumption or investment' also greatly exceeds net domestic product.

In so far as these additional receipts take the form of free gifts (grants-in-aid) no danger is involved. If, however, they largely consist of loans, upon which interest has to be paid, and which have eventually to be repaid, the danger arises that the balance of payments will become more and more adverse, with the result that (unless domestic productivity rises steeply) interest payments, repayment of debt, or both may be difficult to meet, except from further external borrowings. In other words a serious balance of payments crisis may ensue.[1]

Trade is not, of course, the only form taken by international economic relationships. Reference has already been made above to official 'gifts' and 'loans' between nations, and to the fact that in India's case those received greatly exceed those made. In addition, because some foreigners have invested in India, and some Indians have invested abroad, interest and dividends have to be sent abroad, in the former case, and are received in India, in the latter case. As in the case of trade, if more interest and profits are sent abroad than are received, the difference has to be added to retained social product, and vice versa. Similarly, some nationals lend abroad, whilst others borrow from abroad, so that an excess in the value of the former has to be included in net social product, and vice versa.

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[1] On the nature of a 'balance of payments' see Chapter X, and on the problem set by large external indebtedness ('foreign aid') see Chapter XI.

Finally, domestic banks which have received deposits from nationals may (if they so decide) acquire 'international money' in a foreign bank. This amounts to a loss of purchasing power (or money) but not to any movement of goods and services and can be ignored.[1] If, however, a bank imports gold (assuming this to be legal), which can be used either for manufacturing or monetary purposes, this would normally be included as an 'import', and have to be deducted from net social product. Alternatively, an import of gold might be considered as a form of investment (earning no interest or profits)—just like, in the domestic sphere, 'hoarding'—in which case it would not have to be added to net investment.

In general it can, therefore, be said that the modification required by the existence of international economic transactions in measuring national income is to add 'exports' (of all types) to net retained product (or income), and to deduct 'imports' (of all types).

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[1] J. R. Hicks, *The Social Framework*, 3rd Edition, p. 135.

CHAPTER VIII

UNEMPLOYMENT AND OVERPOPULATION

A. Unemployment in Undeveloped Countries
B. The Problem of Overpopulation
C. Conclusions

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A. UNEMPLOYMENT IN UNDEVELOPED COUNTRIES

Unemployment (in its various forms) is one of the outstanding problems in India and in other developing countries with similar economic characteristics. It has already been mentioned incidentally in some earlier chapters, and will reappear again later. As will be shown below, under certain circumstances it is closely linked with overpopulation —a topic to which also references are made in other chapters. The present chapter, however, attempts to explain and state the problems set by these phenomena more fully than can be done in other connections.

Unemployment can take three main forms: unemployment proper, under-employment, and disguised unemployment. In all cases the reference is to those capable of and anxious to secure employment: i.e. to the 'involuntarily unemployed'. It does not cover dependents who are too young, too old, or incapable of work; students and others under training; or those with incomes from property, relatives or other sources, who are not seeking to add to such incomes.

An 'unemployed' person is one who has no income-earning occupation, for longer or shorter periods. An 'under-employed' person is one who may have one or more occupations, but is not in full or continuous employment. He may be employed only 2–3 days per week, or so many weeks per annum. If he belongs to a cultivating family he may only work a few hours per day, or at periods when he is needed on the family holding. He may also take casual employment as an agricultural or unskilled labourer. 'Disguised unemployment'[1] refers to the position of someone who has a full-time job, but one inferior, with regard to the qualities, training or experience required, to what he might hope or expect. Such a job also normally carries less pay than would a more 'suitable' job.

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[1] Some writers use this term as equivalent to (or in place of) 'under-employment'. It seems, however, both logical and useful to make a distinction.

Disguised unemployment is particularly prevalent amongst the educated middle-classes in overpopulated countries, where graduates and others who have undergone training of some sort are often obliged to accept posts for which inferior qualifications (e.g. matriculation) would, and often do, suffice. This forms an obvious waste of the time, money and intelligence of those concerned, and tends to engender discontent or even demoralization. The number of those affected may well be increased by the provision of unsuitable education. For instance, there may well exist, side-by-side, a shortage of technicians, but oversupply of B.As.

All three types of unemployment are prevalent in India (and Pakistan), but it is extremely difficult to measure the numbers involved in each case, and particularly the extent of under-employment and disguised unemployment. No attempt can be made here to fill this gap in data, although (as explained in Chapter VII) the first thing necessary in tackling an economic problem is to discover its quantitative importance.

'Unemployment' is usually measured by counting those registered at labour exchanges. In undeveloped countries labour exchanges are of relatively recent origin, and may not always be found where needed. Some unemployed persons may even be ignorant of their existence and functions, or may think (rightly or wrongly) that no benefit can be derived from registration. It is clearly still more difficult—owing to the very nature of under-employment and disguised unemployment—to make quantitative estimates of the numbers involved in these categories (even from sample inquiries). Some estimates of under-employment may even exaggerate the extent of the problem, by apparently failing to recognize any need for (say) one rest-day per week, or to allow for public holidays.

The economic conditions which give rise to unemployment (of all types) may be explained by reference to the principle of the combination of the factors, considered in relation to that of non-proportional—or, more specifically, decreasing—returns.

In Chapter V (p. 90) it was seen that, in order that production should take place at all, some 'resources' (and specifically land), some 'labour', and some 'capital' (in however primitive a form) must be combined. The relative amount of each factor in a combination varies enormously with the type of production, the methods adopted, and the relative scarcity (or abundance)—and hence price and cost per unit—of each factor. The optimum combination is reached when the addition or reduction of a unit of any one of the factors would result in a decline in total output.

Assuming given quantities of resources and capital, and under given conditions of knowledge, techniques and organization, the addition of one more unit of only one factor (in this case labour) to the combination will result—after a certain point has been reached (i.e. that at which the optimum quantity of labour has been added)—in a decline in the marginal utility of the added factor. Diminishing returns set in. In the extreme case the addition of, for instance, one more labourer (which is the indivisible unit of labour supply) may result in no addition to total output[1]—or under certain conditions (for instance, an extremely confined work-space) even in a reduction of total output, because the additional labourer gets in the way of others. This means that where the size of the working force is disproportionately large in relation to resources and capital (and the necessary co-operating factors) the marginal product and utility of a labourer falls, as does also the price (or wage) which an employer will offer for his services. For a time the situation may be met by a reduction in wage rates. But eventually—if the supply of labourers continues to increase relatively to resources and capital—a point will be reached at which employers are unwilling to take on more workers at any price (i.e. wage-rate) that the latter can be induced to accept. In the absence of minimum wage legislation or strong Trade Unions, this 'point' may be that at which the offered wage does not cover the cost of living even at the margin of subsistence (for instance, in rural areas).

In India, and similarly placed countries, enforced minimum wages and strong Trade Unions are confined to certain industries and urban areas. If there is a legal (and enforced) minimum wage, this provides the unavoidable cost of taking on another labourer, so that employment will not be extended unless the marginal labourer's output covers this cost. Alternatively, as the labourer is an indivisible unit, the result may be that continuous (full-time) employment is not offered. Casual labour—e.g. on so many days per week, or weeks per annum, may be employed, and this (if there are surplus labourers) may be divided between a number of labourers, each of whom is employed part-time and has no security. Where the 'employer' is the family—on family holdings as in rural cottage industries—employment is divided between the members, each of whom works less than full-time. In many cultivating families income per worker (and *per capita*) is less than that of agricultural wage-earners (although the latter may have less security of employment) and the same is true of those taking part in cottage industry. The result of the conditions described above is under-employment.

In agriculture, under-employment may be seasonal, whilst at certain seasons (e.g. harvests) all workers may be employed. In some areas it is alleged that at such times there is actually a shortage of labour. This has given rise to denial of the commonly accepted statement that there is an overall surplus of labour in agriculture even in India. If there is no surplus the transfer of labourers to other sectors would reduce total output. If this were so, the outlook would be grim indeed, even in the very long run. The fact, however, seems to be that the organization and methods of cultivation have been geared to the existence of surplus labour. If need arose so that an incentive to economize labour arose, farm management and methods of organization of the rural economy in general could (probably with little difficulty, if the change were gradual) be adapted to suit the new conditions. To provide more continuous employment much useful (and productive) farm and rural work—such as fencing, bunding, repair of implements, clearing and improvement of irrigation channels—which would increase incomes in the longer-run, could be undertaken in slack seasons. On the other hand, at busy seasons bands of migratory labourers could relieve the pressure, as could also the use of harvesting and other machinery, whilst under certain conditions the harvesting season might be prolonged and thus reduce the number of harvesters needed. Bands of migratory labourers are already found in certain areas, whilst the variation in physical conditions in different regions of large countries, such as India, means that busy seasons differ in time from one area to another. There might also be greater integration between agricultural rural work, such as road construction and subsidiary manufacturing industries. By such means the need for extra labourers at busy seasons could be reduced, whilst employment during slack seasons could be provided. Surplus labour could be siphoned off without reducing total output—which, it is hoped, would in practice be greatly increased by improvements in methods and land utilization—whilst more continuous employment would be provided. Unfortunately, reorganization of this type would involve capital investment, whether in equipment or administration.

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[1] This is the situation which is said to prevail in agriculture in India, so that, if the 'surplus' labourers were removed, there would be no decline in total outpnt. (See p. 145.)

The importance of unemployment of all types, and the outstanding need to create employment opportunities, is fully recognized in India. The plans have as a major objective the creation of conditions leading to a great increase in the demand for labour. Although the plans have in many respects attained (and in some cases exceeded) their targets, so far as employment is concerned the targets have not been fulfilled. Indeed, unemployment—and probably under-employment also—have increased.

This situation is not inconsistent with the increase in average incomes per head that has been achieved under planning. This is because an increase in national productivity does not necessarily involve an equivalent increase in the demand for labour. As will later be explained in more detail (Chapter XII D), the demand for labour created by different types of investment, employing different techniques and involving different combinations of the factors, varies enormously. It is, therefore, possible to have a significant rise in the incomes of the employed population—including a substantial rise for certain classes, and an increase in the number of those in relatively well-paid positions—side-by-side with an absolute (if not a relative) increase in the number of un- and under-employed.

The task of eliminating unemployment (of all types) might be attempted in various ways. Some methods may be quickly dismissed. First, surplus labour cannot be eliminated by transferring labour from one sector to another because there is unemployment in all. The fact that there is a scarcity of some types of technical and otherwise highly qualified labour does not affect the question, because the quantity of 'scarce' labour required is insignificant in relation to the total labour force. Second, to adopt only techniques requiring high labour intensity for new investments (and existing productive concerns including rural industries) would fail to engender savings for future investment and hence would prevent development.[1] Third, measures for increasing the other factors to be combined with labour may be considered. In the agricultural sector the greatest scarcity amongst resources is 'land', as shown by the very small size of the great majority of holdings, the desire of many cultivators for more land, and the large and growing number of landless families. Even a complete redistribution of holdings on an equal basis amongst would-be cultivators would not result in holdings of a size sufficient to provide subsistence for each family even of a very modest standard—let alone the means for saving, investment and development. This is on the assumption of 'other things remaining equal'. To change these 'other things' would require capital investment for reclaiming the remaining cultivable but uncultivated land (and in transport etc. to make it accessible and inhabitable); and capital investment of very many types (e.g. in the construction of irrigation works and wells, in the supply and distribution of manures, improved seeds and tools, and in the reorganization of land utilization) designed to raise yields per acre. Relevant policies are being, and have for long been, pursued, but not at a rate commensurate with the rate of growth of the labour force. Hence there is still a scarcity of land and more productive land to be combined with labour, whilst to improve the supply would necessitate more capital investment. In the modern industrial sector and urban areas, to increase the demand for labour sufficiently to absorb the rural surplus would require a quite inconceivable volume of capital, because the essence of 'modernization' is to introduce labour-saving devices. In every direction one is brought up against the scarcity of capital (and its co-operating factors)—despite the valiant efforts that are being made to increase and mobilize savings, and to borrow domestically and from abroad.

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[1] See Chapter XII D for a fuller discussion.

It may then be asked how it is that countries which have had an over-supply of the other factors (than labour) have found this to be no obstacle to development? The answer is very simple. If there is more land in relation to the other factors, the land is left unused. If the demand for raw materials, tools, clothing or houses declines, production falls off or ceases. If there is too much real capital of any type, no more is produced, and that which has been produced is scrapped. Obsolete and out-of-date machinery and plant is being scrapped every day. In a depression when the demand even for finance falls, purchasing power may be laid aside ('hoarded') until better times return (it does not need to be fed!). Credit may evaporate if its owners cannot make profits. But if labour is in excessive supply, people continue to have babies, whilst labourers cannot be scrapped or left in a bank. All that can happen is unemployment. If unemployment is attributable to more than temporary depression, whilst there is difficulty in increasing the other factors sufficiently to procure a balanced 'combination', the conclusion follows that the major, underlying cause of unemployment must be over-population and an unduly rapid rate of population growth.

B. THE PROBLEM OF OVERPOPULATION

As has been seen in Chapter I it is only under particular circumstances that there is a direct relation between unemployment and overpopulation. In other circumstances there can be overpopulation without unemployment proper; in yet other circumstances there may be unemployment without overpopulation. How this can occur has already been suggested in several contexts. To recapitulate, if overpopulation is not serious, and the standard of living not too low, 'surplus' workers may be absorbed into employment by reducing the rate of wages and earnings, and perhaps modifying the organization of production and use of techniques. The 'cost' of these modifications is the reduction of income per head of the employed, and possibly some decline in present and future productivity (i.e. by reducing marginal output per worker, and possibly also savings). On the other hand, unemployment may occur where there is no overpopulation, owing to faulty economic organization and control, permitting large fluctuations in prosperity, so that serious temporary depressions occur which would not be cured by a reduction in population. This latter state of affairs has been characteristic of a number of advanced countries, resulting in (more or less, but generally less!, successful) stabilization policies.

In India and Pakistan, it is hardly necessary to demonstrate the existence of overpopulation, and its connection with unemployment of all types. All the evidence shows that a large number of people of working age exist for whom there is no employment-demand in rural and urban areas, and in agricultural and non-agricultural occupations alike. Earnings for the marginally-employed have been reduced to a mere subsistence level. Even in periods of great economic activity a labour surplus remains. There is never any sign of a shortage of labour (except, as mentioned above, of quantitatively negligible types of skilled persons). The occupational distribution of the population also reflects the universally recognized over-supply of labour in relation to land and capital. For many decades the Indian censuses have revealed the continuance of dependence of some 70 per cent of the population upon agriculture, in spite of extensive under-employment there and the fact that agricultural earnings in all countries are normally below those in other occupations.

This all-round surplus of members of the labour-force clearly reflects the size and rate of growth of the population which, as has been shown, is in no way determined by the economic demand for labour. Moreover, it is not only the size of the population seeking employment that has to be considered, but also the total population of all age groups. Even if the population of working age happened to coincide with the best combination of the factors, if the age structure is such that those employed have to support more dependents than will in the future be necessary to maintain a correct combination of the factors, there will be both more mouths to feed (and hence a smaller average income per head) than otherwise would be the case, and an oversupply of workers in the future. Both phenomena indicate overpopulation, in the sense that the nation as a whole would be better off with a smaller population and one growing less fast.

Contrariwise, starting from a position in which the labour supply is optimum, if the age-structure is such that the working population cannot replace itself, in the future labour will become scarce, and underpopulation is said to exist. If overpopulation prevails, a reduction in young dependents is desirable; if underpopulation prevails, an increase in young dependents is desirable. Underpopulation, like overpopulation, carries with it economic defects—but (as past history shows) ones which can be more easily remedied than those accompanying overpopulation.

This leads to consideration of the optimum theory of population, which states that at any given moment, under given conditions of knowledge, techniques and organization, there is a particular size of population which will give the best economic results: i.e. the greatest total and *per capita* incomes. This theory is based on the same lines of argument adopted above in explanation of unemployment (of all types). It has, however, fallen into disrepute because of the impossibility of measuring what size of population would be the optimum, and also because other things do not remain unchanged. The future demand for labour may rise or fall. Knowledge, techniques and organization alter, sometimes very quickly.

The topic of overpopulation can hardly be left without reference to Malthus's famous theory. Malthus's view was that population always tends to increase up to the margin of subsistence, because—even in economically prosperous periods—it tends to increase at a faster rate than 'subsistence'. If true, it follows that there must always be a tendency towards overpopulation, and that the poorest can never raise their standard of life above the margin of subsistence. Since his time history has shown the falsity of his assumptions. In many countries the rate of population growth has been reduced not by disasters, or lack of subsistence, but by deliberate personal decisions (by means, for instance, of birth-control, abortions and sterilization). On the other hand 'subsistence' has been increased at a very rapid rate both by scientific agricultural improvements and by the possibility of securing additional foodstuffs (and other primary products) from the opening-up of regions capable of producing and exporting (at relatively low cost) a large surplus of such commodities, in return mainly for the surplus manufactures of the food-importing countries. Transport improvements, by land and sea (and more recently by air)—including refrigeration—have enabled international specialization which, greatly re-enforced by scientific and technical progress, has resulted in an immense increase in productivity. Moreover, the rates of invention and investment have tended to rise. Indeed, in advanced countries there is nowadays little fear of overpopulation, in the sense of increasing pressure on the means of subsistence. (In some countries other problems have, it is true, arisen from the extreme concentration of population in particular areas.) In India, and other overpopulated developing areas, not only does the rate of growth of the labouring force still exceed that of the demand for labour, but there is a large backlog of economically surplus labour.

The problem of overpopulation in India (as also, for instance, in Pakistan and Ceylon) has been greatly aggravated by the so-called 'population explosion', which started in India from about 1921. Since then the annual rate of population growth has approximately doubled, and is still increasing.

The means by which the population explosion has occurred can be found in the trends of birth and death rates. Some couple of centuries ago, when both birth and death rates were high, there was no reason to consider India overpopulated. On the contrary there was cultivable and accessible land, in some areas, to which it was difficult to attract cultivators. Population was kept down by famines and other physical disasters, by wars and disorders, and by decimating epidemic and endemic diseases. These accounted for the extremely high death-rate. At this time the Malthusian tendency for the labouring population to increase (in prosperous periods and regions) up to the margin of subsistence, undoubtedly prevailed—as indeed to some extent it still does. In good times more babies and children survived, but there was no long-term improvement in the standard of life.[1]

After about the middle of the nineteenth century, for a variety of reasons, the death-rate began to fall gradually, at the same time as total output and trade increased, whilst the birth-rate was unaffected. More land was brought under cultivation, until it became difficult to extend cultivation further without very substantial capital investment (which might, moreover, not yield profits in the sense of bringing in direct returns to the capital invested). After the First World War the various factors tending to reduce the death-rate became progressively more effective. In particular improvements in public health and the medical services practically extinguished the former high death-rate from epidemic and other diseases, and led to a cumulative increase in population, not counterbalanced by an equivalent increase in the demand for labour (or in the standard of life of the poorest classes). In the meantime it remained doubtful whether any significant decrease in the birth-rate had occurred.

The net result of these developments was that, on the one hand, the rate of population growth continued to increase, whilst, on the other hand, the demand for labour lagged.

C. CONCLUSIONS

It has now been demonstrated that there is an intimate relation between unemployment (in all its forms) and overpopulation in India and similarly placed countries.

Three main types of remedies for overpopulation have been suggested.

The first is emigration. In the past emigration has helped some European countries to remedy their tendency to overpopulation. Many Indians have emigrated at certain periods (especially to overseas plantation areas), but the number involved was insignificant in relation to the rate of population growth. Their places at home were quickly filled. Moreover, more and more countries began to place restrictions on immigration, so that today these restrictions make any outlet for overpopulation by emigration out of the question.[2]

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[1] See Vera Anstey, *The Economic Development of India*, 1952 Edition.

[2] No reference is here made to the vast inter-migration that occurred on Partition, because, although it clearly had immense economic results, these were of a type quite irrelevant in the present context.

The second type of remedy is to step up the demand for labour by increasing resources and capital until the over-supply of labour in combination with the other factors is remedied, so that the marginal productivity of labour is raised.

It is hardly necessary to emphasize that every effort in this direction is now being made by planning. The immense obstacles to this remedy have already been discussed at some length. Here it may merely be said that no increase in either resources or capital sufficient to catch up with the existing (and increasing) over-supply of labour can be expected except (if at all) until after a quite unacceptedly long period —during which more and more foreign aid would have to be attracted.

This leads us to the third possible remedy: to restrict the rate of population growth. As Benham says of overpopulated countries,[1] 'In the long run, the most effective way, and perhaps the only way, to maintain and improve their standards of living is for them to reduce their numbers by having fewer babies.' This is recognized in India and Pakistan. Both countries have officially adopted the policy of family planning, and have established several thousand centres for the purpose. The High Commissioner for India in London, in an address in support of the British Family Planning Association, has appealed to Western countries 'to supply cheap oral contraceptives on a big scale as aid to India in her programme of economic development'.[2] In Pakistan, the Secretary of the Ministry of Health, Labour and Social Welfare, has called overpopulation 'the most crucial of all problems facing our country in the social welfare sphere'.[3] This policy also will take time to show results, but a beginning has been made, and it is significant that there does not seem to be (as there has been in some advanced countries) any widespread religious opposition to family planning.

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[1] F. C. Benham, *Economics*, 6th Edition, p. 130.

[2] *India News*, June 15, 1963.

[3] *Pakistan News*, June 15, 1963.

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CHAPTER IX

MONEY AND FINANCE

A. Money and Banking: 'Money Is What Money Does'
B. The Role of Public Finance
C. Finance and Credit for the Private Sector

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A. MONEY AND BANKING: 'MONEY IS WHAT MONEY DOES'

The main functions of 'money' are to act as a medium of exchange and a measure of value. Before the invention of 'money', exchange of goods could only take place by 'barter': i.e. so many units of commodity A, in return for a given number of units of commodity B. This was a very clumsy method, involving a 'double coincidence of wants', that is 'a man must find another who both has what he wants, and wants what he has'.[1] Moreover, it may take much wrangling to decide now many coconuts or pencils, or pounds of tea should be given in exchange for an elephant!

Before money took its present forms, it was found convenient (over certain regions, by particular tribes, or by other groups of people) to agree upon some third substance—such as tobacco, shells or hides—found to be generally acceptable (because in general demand) and reasonably durable, for which other goods could be exchanged, and in terms of which values (i.e. prices) could be determined. Other desirable qualities for a 'third' substance—i.e. a medium of exchange—are that it should be divisible into small, homogeneous units, not too bulky or heavy, and that its output should be small in relation to the total stock (so that fluctuations in output or new supplies should not lead to a substantial change in the total amount of 'money').

Gradually the precious metals (and finally gold) became recognized as the most convenient 'money'. The rise of banking (with deposits subject to cheque), and the issue of bank-notes legally usable for purchases and the extinction of debt, has resulted in 'money' being composed of the following items in advanced countries and in the monetized sectors of many developing countries. These are:

(i) Cash or 'currency' issued by the monetary authorities (normally the Government and/or the Central Bank): i.e. coins (including token coins, whose intrinsic or metal value is substantially less than their exchange value) and inconvertible paper currency (i.e. bank notes). At the present day the right of note-issue is confined in most countries (including India and Pakistan) to the Central Bank (in India the 'Reserve Bank'; in Pakistan, the 'State Bank'), but the circulation of notes amongst the public is undertaken mainly by the commercial banks.

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[1] F. C. Benham, *Economics*, 6th Edition, p. 421.

Under the gold standard bank notes could be presented to the banks for conversion into gold coins, but since its abandonment notes have become inconvertible, whilst gold, as the basis of and reserve for the monetary system, has been complemented by a complicated (and partially international) system of credit and reserves consisting of recognized types of foreign exchange.

(ii) Bank credit; that is deposits at banks subject to cheque. Deposits on current account are subject to cheque without notice: i.e. on presentation of a cheque they will be met at once in cash. 'Time' deposits require a few days' notice before cheques can be cashed. Nevertheless, they are highly liquid assets, which may also be considered as 'money'.

Before proceeding to some further explanation of the nature of bank credit, it may be noted that 'money' is often said to possess two further functions. These are: acting as a store of value and a standard for deferred payments. In practice, money can fulfil these functions satisfactorily only if the general price level remains stable over time. Otherwise (as will be further discussed below), it will be found that what can be bought with a given sum of money at the end of a period differs from what could be bought at the beginning of the period. It may be more (if prices fall) or less (if prices rise). In fact, since at least 1939, the longer-run tendency has been for the price level to rise in most developing countries, and it is generally anticipated that this tendency will continue. Hence anyone who possesses a stock of 'money', but does not wish to spend it on consumer goods or to invest it in a business of his own, may prefer either to purchase durable goods (such as precious stones or house-property) whose value in terms of money—i.e. price—is likely to change in consonance with the general price level, or to purchase types of stocks and shares chosen with the same end in view (making allowance also for relative risks). Similar considerations apply if money is used as a standard for deferred payments.[1]

How bank credit is created, the limits on its creation, and policies directed to control of credit creation must now be considered. Banking began in the UK with the goldsmiths in the seventeenth century, with whom wealthy people began to deposit treasure and precious articles (chiefly gold, silver and precious stones) for safe-keeping. The goldsmiths found that it was unnecessary to keep 100 per cent reserves against gold and silver in order to meet the demands of the depositors, because not all depositors applied at the same time. Hence they began to lend out part of their deposits. The bankers could, therefore, 'create credit' by relending part of both current account and 'time deposits', charging interest on such loans, and paying a lower rate of interest on time deposits, thus earning a profit. Normally the loans made take the form of deposits subject to cheque. This again increases the total sum against which cheques can be drawn: i.e. still more credit is created. In order to earn more profits banks like to extend this process as much as possible.

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[1] See F. C. Benham, *Economics*, 6th Edition, p. 424.

The power of banks to 'create credit', and, therefore, money, is however limited in a number of ways. For their own sake they must deep reserves sufficient to be able to meet unusual, as well as normal, demands for cash. The proportion of reserves held against deposits may be regulated by convention or by law, but the monetary authorities have power to alter this proportion. Moreover, in India and Pakistan the scheduled banks[1] must deposit a given proportion of their reserves (alterable by the Bank from time to time) with the Central Bank (interest free). Should there be a financial crisis in the sense that the public's desire for 'liquidity' (i.e. for money to hold) rises abruptly (for instance, if a bank failure is feared) a bank (or banks in general) can fall back on the Central Bank for financial help. Interest is charged on such advances (loans) made by the Central Bank, and the rate charged can be raised whilst at times even some form of quantitative control is exercised. By these (and other) methods the Central Bank can exert strong pressure to prevent the banks from extending credit unduly.

The other main functions of the Central Bank (in India and Pakistan alike) are to act as banker to the Government and to the commercial banks.

As the bankers' Bank, as already noted, it acts as their 'reserve of last resort', and limits their power to create credit. Here it must be noted that the Bank's power to limit bank credit is severely restricted by the fact that this power applies directly only to the so-called 'Scheduled' Banks. These are large banks in the modern sector, of which a list must be kept. It is only these banks which are obliged to keep a balance with the Central Bank, and are entitled in return to have their 'paper' (i.e. Treasury and other first-class bills[2]) discounted

[1] i.e. those with a special relationship with the Central Banks, involving both privileges and duties.

[2] A commercial bill is one drawn by the producer on the purchaser of his goods, and accepted (i.e. acknowledged in writing as a debt) by the latter—who does not, however, undertake to pay immediately (a three-month's bill isusual); the bill is considered 'first-class' when the purchaser's reputation is very high.

—that is, accepted in return for cash, after allowing for interest—by the Bank. The indigenous (or non-scheduled) banks have no similar obligations or facilities (some formerly non-scheduled banks have now become associated with the Central Bank, and added to the list).

As banker to the Government, in addition to controlling currency and attempting to control credit-creating, the Central Bank promotes the Government's monetary policy by managing the national debt, operating foreign exchange controls (which together with fiscal measures, such as tariffs and quotas, aim at stabilizing the external value of the rupee), and influences the volume of credit in the country, not only through its power over the scheduled banks, but also through the Bank Rate and Open Market Operations. (Research is another important function of the Central Bank, in addition to which special departments are set up for special purposes.)

The Bank Rate is the minimum official rate at which the Central Bank will lend at short-term, by rediscounting (i.e. purchasing at a lower rate) first-class bills held as short-term, and, therefore, liquid assets by the banks.

By convention lending rates by commercial banks and other creditors follow changes in Bank Rate in the same direction (although at higher rates), partly because they are expected to do so, and partly because other measures (mentioned above) can be adopted to force scheduled banks to follow suite. Some non-scheduled banks in large centres may (but need not) act similarly, because at times they themselves may—when credit is scarce and dear—be forced to seek credit from scheduled banks.

A rise in Bank Rate increases the cost of borrowing and thereby tends to check enterprise and investment. This checks the demand for goods of all types, and thereby restricts price rises (or leads to a fall in prices). Unfortunately, it also reduces employment. A reduction in Bank Rate has the opposite effect: i.e. it tends to encourage expenditure and to increase employment. Bank Rate policy, therefore, has to be used with care. 'Open Market Operations' are also used to affect the supply of money. According to this policy the Bank buys (sells) securities (and/or Treasury Bills) in order to increase (decrease) the supply of money with the public. If it buys securities, it pays money out to the public; if it sells them, the public pays money to the Bank. The effects of Open Market Operations are, therefore, similar to those of Bank Rate changes. The influence of Bank Rate and Open Market Operations are—like the other policies designed to restrict bank credit—confined to the (relatively small) modern sector in India, Pakistan and other undeveloped countries. Moreover, if pressed, banks and businesses in the modern sector may have recourse (surreptitiously!) to the unorganized sector. The extent to which 'monetary policy' can be enforced on the economy as a whole is much less than in advanced countries. Other measures (such as fiscal policy) therefore play a more important role than in advanced countries.

The total amount of 'money' (of every type) in existence at any moment of time is, therefore, determined, and can only be increased by the monetary authorities (the Government and the Central Bank) and—to some extent—by the non-scheduled banks and indigenous money-lenders-cum-bankers. But over a period, what the total money supply can do is also affected by its 'velocity of circulation' (i.e. the average number of times each unit changes hands).

Hence the demand for money consists of a demand partly for money to spend or invest, and partly for money to 'hold'. If 'liquidity preference' increases this amounts to a reduction in money in active circulation, and an equivalent reduction in the power to spend or invest. What happens then is that people buy less than before, causing a reduction in business activity and employment, until—or unless—prices fall and as much as before can be bought at lower prices. On the supply side this means a reduction in sales and profits, unless—or until—costs (and hence prices) can be reduced. This checks enterprise, and usually leads to a depression, during which profits fall severely, and some firms and individuals go out of business, especially as (or when) it proves politically impossible to reduce wages, salaries, and some other costs.

On the other hand, a decrease in the demand for 'money to hold' stimulates expenditure and enterprise. Hence until output can be increased, or new investment set-on-foot, prices will tend to rise (thus 'rationing' scarce goods and investments).

On the supply side, what 'money can do' depends (as seen) on the total amount of money and its velocity of circulation. When liquidity preference falls and business is brisk, and it is anticipated that this will continue, normally more currency is issued and more credit granted to meet the increased demand for money. Alternatively, the velocity of circulation rises. But if business is slack, to issue more currency will not stimulate trade. On the contrary, the currency will remain with the banks, whilst even if the banks are willing to give credit on easier terms, few entrepreneurs will seize the opportunity if they anticipate the continuance of slack business, low profits, and low prices.

Some economists used to think that there was a particular relationship between money and the price level, so that an increase in currency and greater readiness to grant credit would result in an increase in the circulation of money, and hence a revival of prices. Similarly, it was held that a continuing (or 'inflationary') rise in prices must be due to an over-issue of currency (and credit). This is not true. If the level of incomes remains unaltered, more 'money' will not be demanded. It will remain unused. The misconception may be compared with the false idea that 'everyone wants more money'. There is normally no difficulty in securing 'money' with which to make purchases up to the limit of one's income, or credit to the limit of one's security ('assets'). What everyone wants is more income, not more 'money'.

The value of a unit of money—its purchasing power in goods and services—can, therefore, be explained in terms of demand and supply —as with all other exchangeable goods. It has, it is true, also been explained in terms of 'liquidity preference'—the demand to hold money. This stresses the concept of the amount of money in circulation (more or less of the total supply being 'held' inactive) instead of the total supply of money multiplied by its velocity of circulation. The idea is that changes in output, transactions and prices lead to changes in liquidity preference, so that it is unnecessary to look elsewhere to account for price changes.

In the above discussion, however, 'liquidity preference' has appeared simply as one factor affecting the demand for money and business activity. This appears to be a more general, realistic and illuminating approach to the subject than concentrating solely upon one key factor whose 'size' ultimately reflects changes in the other factors. This conclusion is in line with that reached in Chapter V, pp. 99, 100, with regard to the theory of interest.

The effects of small changes in the value of money (i.e. in the price level) can be briefly summarized as follows:

Rising prices favour those whose incomes depend upon profits (e.g. entrepreneurs, most businessmen, and shareholders), because the level of profits reflects the difference between final sales (at the higher price-level) and costs (some of which were incurred before prices rose). They, therefore, stimulate business, enterprise and investment —and also tend to increase employment. Borrowers gain on repaying debt, as occurred when, during the Second World War, much agricultural debt was wiped out (unfortunately mainly to the advantage of the more prosperous peasants). Those who lose when prices tend to rise are fixed income-receivers, such as pensioners, and wage and salary earners (there is generally a lag between a rise in prices and an increase in wages and salaries). The Government gains at first, as its receipts (e.g. from taxation) tend to rise, whilst some expenditure does not immediately increase. In the longer-run a continuous rise in prices may engender fear of inflation and lead to lack of confidence in the currency, especially abroad. Moreover, efforts to prevent inflation may necessitate the adoption of unpopular policies (including those already mentioned designed to check credit-creation). If the price rise is checked, those who have undertaken investment in anticipation that prices, profits, and sales will continue to increase, may find themselves in great difficulties, because unable to sell enough at prices which cover costs.

A fall in prices has precisely opposite effects to those mentioned above as following a rise in prices. In particular business activity declines and employment diminishes. It is advantageous to check a price-rise that threatens inflation, but a continued price fall is highly disadvantageous. Price-stabilization is extremely difficult to achieve, and may not be altogether desirable in developing countries so long as there is urgent need to stimulate enterprise and investment. On the other hand, an initial rise in employment and money incomes, arising from higher prices, may prove a stimulus to output which—if not long delayed—may lead to an equivalent (or nearly equivalent) rise in real incomes.

If a rise in the price level is not checked, or limited, it may have very serious results. A so-called 'inflationary' trend may set in. 'Inflation' may be defined as a continuing trend for incomes (and hence monetary demand for goods) to grow at a more rapid rate than the output of goods (and services) demanded. 'Too much money chasing too few goods.' This may be brought about in a number of ways. In particular if more employment is created and wages (and other earnings) of the employed are raised, whilst the investment undertaken results in a long delay (anticipated, or due to lags in implementation) before any output is achieved, or when what is produced is not what is demanded by those whose money incomes have been augmented, competition takes place for the now scarce consumption goods, whose prices rise—and continue to rise if the production of consumption goods cannot be quickly expanded (as is the case with most agricultural products). Again, physical disasters (such as widespread failure of the rains, or flooding) may lead to a long-drawn-out lack of foodstuffs and raw materials to meet monetary demand.

If such a situation is not remedied, a disastrous 'run-away inflation' may develop. The demand for money-to-hold will fall, as loss of its value is feared, and everyone rushes to turn money into goods. More and more notes (or other forms of cash) are issued to enable people to buy goods at all. Prices and the cost of living soar, so that wages and salaries (and other earnings) have also to be raised. Money loses value more and more rapidly, until people refuse to accept it and revert to barter. The whole economy becomes completely dislocated.

It is, therefore, essential to prevent 'run-away inflation', and this can be done the more easily the earlier an inflationary trend is detected. It is, therefore, desirable to be able to measure the price-level and changes therein. Unfortunately, it has not been found possible to construct a Price Index suitable for all purposes. A meaningful Index cannot be constructed based upon the prices of goods and services of every type and varying importance. Hence, the Indices chosen have been an 'Index of Wholesale Prices' and 'Cost-of-Living' indexes. The latter, for the sake of realism, are often constructed specifically for particular cities or areas. Although imperfect measures of the general level of prices, these indices can act, at least to some extent, as danger signals for inflationary trends.

B. THE ROLE OF PUBLIC FINANCE

Public finance is largely concerned with the choice between, and balance of, policies—with regard to revenue and expenditure alike—by means of which a government can best fulfil its economic and financial functions and objectives. It can, then, only be discussed in any detail with reference to a particular economy, and in the light of that economy's financial structure and objectives. No such task can be undertaken here for particular countries. All that can be attempted is to call attention to some important problems, and to indicate certain guiding principles and their possible applications.

Public finance may be defined as the art of financial management by a government, as exercised through the national budget (in both current and capital accounts),[1] in carrying out the functions assigned to it. In a democracy the functions and objectives of public finance are subject to parliamentary agreement. Under authoritarian rule, public opinion may have less control over the Government's financial decisions, but cannot be entirely disregarded if popular support is desired for the rulers (or ruling party). On the other hand, particular fiscal and financial policies, which by their very nature favour certain interests and classes at the expense of others, can never please all sections of the community.

In recent decades ideas have greatly changed, in advanced and developing countries alike, as to what should be the role of public finance, and to which objectives priority should be given. In India during the inter-war period the 'orthodox' view (following that prevalent in Britain) was that expenditure should be mainly confined to defence, civil administration, maintenance of law and order, and the conduct of foreign affairs (political and economic). Welfare expenditure, even upon such important objects as education, public health, and agricultural research, tended to be kept at a minimum, largely because under an alien government it was deemed necessary to keep taxation low.

Sufficient revenue was to be raised to cover necessary expenditure. It was to be raised as 'fairly' as possible, in relation to the taxable capacity of the various sections of the population and of individuals, on a basis permitting some (quantitatively unspecified) redistribution of wealth, incomes and welfare. But above all, it was sought to balance the budget, if not annually, at least over a short period. This meant that in times of depression (for instance, the 1930s), when incomes (and hence taxable capacity) fell seriously, either expenditure had to be curtailed, or rates of taxation raised, or both (as actually happened).

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[1] The current account deals with annual items of expenditure and revenue; the capital account with longer-term items.

The 'Keynesian revolution' had not yet occurred. This revolution in economic thinking was based on the concept that periodic fluctuations in prosperity (i.e. the 'trade cycle') could be controlled by appropriate budgetary measures. In particular Keynes held that depressions were due to a temporary shortage of spending power, and could be remedied (or at least mitigated) by a counterbalancing temporary expansion of public expenditure, for instance, by instituting widespread public works designed to absorb the unemployed. This led to the addition of 'economic stabilization' to the objectives of public finance, but necessarily entailed the abandonment of the 'balanced budget' principle. Instead of (as formerly) limiting expenditure to the total revenue obtainable from the existing tax (and other) resources, or raising tax rates at a time when the extra burden would be most felt, the policy was to create employment, at the cost of running a budgetary deficit, until the injection of additional spending power led to a revival of demand, and so to the return of prosperity.

In undeveloped countries—as will be seen—the policy recommended for advanced countries was not able to achieve the desired results, but even here the 'orthodox' response to depression was abandoned or modified. 'Development' replaced 'stabilization' as an objective in such countries, which involved substantial resort to foreign capital. It was no longer held to be essential to balance domestic revenue and expenditure by cutting expenditure and increasing taxation in general. In depression, however, it might be possible to borrow more from the home market, and to levy taxes on luxury consumption goods, thus avoiding additional burdens on either necessities or the basic and other developing industries.

In India and Pakistan (as explained in Chapter VI) the trade cycle—as distinguished from widespread physical disasters, which may cause serious economic disruption—has played a much less prominent role than in advanced countries. A decline in domestic confidence and investment has not been a major cause of country-wide depression and unemployment. A reduction in foreign demand for some of the products of India and Pakistan has been the form in which a world-wide trade cycle has affected these countries. Under such circumstances the policy suitable for advanced countries—of expanding public expenditure to create employment—can neither provide a remedy, nor be pursued without the danger of engendering inflation. In so far as the trouble originates from lack of foreign demand, this cannot be remedied by the injured countries' own actions. On the other hand, un- and under-employment amongst the masses cannot be cured by an injection of spending power by the governments, because of the inelasticity of output (at least in the short-run) in the predominant sectors of the economies: that is in the rural and mainly agricultural sectors.

In fact, depression in countries such as India and Pakistan is due not so much to a temporary fall in total demand, as to the lack of the factors needed to co-operate with labour if output is to expand. The great problem has been, and still is, not the trade cycle, but a long-term condition of extreme poverty, and of un- and under-employment. Hence what has been, and is, needed is not so much 'stabilization', as 'development'—which has become the primary objective of public finance as well as of economic policy as a whole.

The function of redistributing wealth, income and welfare has also gained in importance in India and Pakistan since Independence. This is shown by its inclusion as a national objective in the Constitutions of both countries, and in their various plans. Incidentally, it may be noted that redistribution is interpreted to apply not only as between individuals, but also as between regions (which differ greatly in wealth). The duty to give alms has always formed an important element in Eastern religions, and under planning the redistribution of wealth may be said to have become 'official charity'.

The effects on budgetary expenditure of the relatively new emphasis on development, and (to a lesser extent) on redistribution, have been strongly re-enforced by the increasing rate of population growth, which adds greatly to the cost of administration, of public services of all types, and in particular of education and public health.

It is, then, no wonder that since Independence there has been a vast expansion in real (as well as monetary) budgetary expenditure, on both current and capital accounts, under most headings. This is not the place to discuss quantitative amounts and changes under the various heads of expenditure, some of which are determined by political and administrative, rather than economic, considerations. Some of the problems of planned expenditure are, however, discussed in Chapter XII. So far as the main heads of expenditure are concerned, let it suffice to say that defence (unfortunately!) still heads the list in both India and Pakistan, whilst (if an appropriate classification is adopted) the second place is now held by development. The functions of public finance may, then, be summarized as the allocation of resources amongst varied uses; the redistribution of wealth, income and welfare in the interests of justice, and the satisfaction of social wants and/or needs; development; and the raising or securing of sufficient financial resources to carry out these functions. It is clear that on the expenditure side these functions are far-reaching and complex, and in certain respects, may prove conflicting. In particular what is needed for development may conflict with the dispensation of individual and social justice.

The main sources of revenue, and the merits and demerits of policies designed to raise revenue, may be more fully discussed than has been appropriate for the various heads of expenditure. At first this will proceed irrespective of whether or not the resources have been assigned to the federal centre, or the units. Later the problems of federal finance will be briefly commented upon. The main sources of public revenue in many undeveloped countries (including India and Pakistan) may be classified as follows:

(1.) *Taxation:* (i) 'Direct'; (ii) 'Indirect'.

(2.) *Non-tax Revenue:* (i) Domestic and foreign loans, and small savings; (ii) Short-term loans; (iii) Profits from governmental enterprises, and surplus revenue (if any) from administrative departments and public services; (iv) Interest from loans to private enterprises, States (or Provinces), local authorities and other bodies; (v) Governmental monetary and exchange reserves (external and internal); (vi) Deficit finance.

'Direct' taxation is understood to mean the taxation of individuals, families, or firms, based on some estimate of their absolute and relative capacity to pay, as judged by their wealth, incomes or other resources. 'Indirect' taxation refers to the taxation of goods or services consumed or used by the public. The orthodox view was that 'direct' taxes were necessarily borne by those upon whom they were levied, and could not be shifted, whereas the burden of indirect taxes could be shifted to consumers by raising prices. The prevalent view today is, however, that, in some cases, direct taxation can lead to a rise in the price of the products produced (e.g. by a firm) or services rendered (e.g. by professional persons). Classification into direct and indirect taxes, nevertheless, remains convenient and has been retained.

The main principles to be taken into consideration in choosing what taxes to impose, and at what rates, are: (i) justice as between tax-payers, determined mainly on the basis of assumed 'taxable capacity'; (ii) least sacrifice (in relation to revenue raised) by tax-payers; (iii) economy in collection and administrative convenience (which are closely related: for instance, it is both economic and convenient that income tax should be collected centrally, even if the revenue therefrom is divided between the centre and the units); (iv) yield, and, in particular, the income-elasticity of yield so that whilst national income grows, tax receipts also grow: and (v) their compensatory character, if several types of taxes are levied.

Some authorities have argued in favour of levying only one type of tax, at rates providing sufficient revenue for all public purposes. This would clearly mean great simplification, but would suffer from serious defects.

On the principle that all citizens should contribute something to the State, in return for the benefits conferred by it on all, a flat-rate tax on all citizens might be advocated, but would be grossly unfair to those with small incomes. Proportional or progressive income taxation levied in relation to wealth or income on all citizens, with very small rates for the poorest, would be extremely expensive and difficult to collect. Indeed the cost of collection would be likely to exceed the revenue derived from the poorer classes, whilst to secure sufficient revenue for present-day needs from only the better off would involve very heavy and disincentive burdens on the middle and upper classes. Hence, in India and Pakistan the practice has evolved of exempting the poorer classes altogether from income tax, those above the exemption level paying at progressive rates, i.e. at rates which take a larger proportion of the assessed income, at each higher income 'slab'—each income being divided into a series of 'slabs'.

The principle underlying progressive taxation is that the marginal utility of each unit added to income is less, the larger the income. This principle is generally accepted, but there is no means of proving its validity, nor of quantifying the decline in marginal utility (assuming this exists). For instance, who can say at what figure an income of Rs 20,000 per annum should be taxed to secure equivalence with (say) Rs 1 deducted from an income of Rs 200 per annum? Only rough justice can be done, whilst ideas change greatly over time as to the quantitative content of 'rough justice'.

In poor countries income tax, even if raised to very high rates for the highest income 'slabs', and extended (as it is—under one name or another) to firms and corporations of all types, would obviously not yield anything like enough revenue to meet public needs (especially as income-tax payers form only a tiny fraction of the earning population). Moreover, not only would extremely high rates on top incomes be disincentive to enterprise, but they would also provoke large-scale avoidance and evasion. They might also impair the power to invest in the private sector, and thus 'kill the goose that lays the golden eggs'.

Recourse has, therefore, to be made to other taxes. In the class of direct taxation, these may include wealth, gift, capital gains and expenditure taxes—and also estate duties (i.e. taxes on wealth left at death) and land revenue. These cannot be discussed in detail here. It can merely be noted that a low annual rate of wealth tax (although it is not easy to assess 'wealth') avoids the disincentive effect to profit-making, and, therefore, enterprise, of very high income-tax rates; that estate duties are relatively easy to assess and collect, and difficult to avoid or evade; that the taxation of realized capital gains (with allowance for losses) normally brings in little revenue over the years, although it does discourage speculation; whilst the expenditure tax, which is extremely difficult to assess and administer, was—after a short trial—abandoned as impracticable in India. Land revenue has been the traditional flat-rate tax on the owners of land in India and Pakistan, and formerly provided a substantial percentage of total tax revenue, but has recently become of minor revenue-yielding importance.

It must not be overlooked that tax concessions of many kinds can be, and are, granted (to individuals, families, and companies) to promote given economic (and social) objectives. For instance, differential treatment may be accorded to earned and unearned income. To encourage enterprise and especially new firms, tax-free depreciation allowances, development rebates, and tax-free holidays for new firms in favoured industries, may be granted. By these means taxation can be used positively (and not only negatively) to provide incentives for development in planned directions. Appropriate modifications in tax law can also be introduced to avoid disincentives to foreign firms and foreign private investors.

The limitations on the revenue to be secured from direct taxation lead to consideration of indirect taxes, and how they can be fitted into the scheme of taxation as a whole. In accordance with the principle that all citizens should contribute something towards public revenue, indirect taxes can be used for this end, without laying too great a burden on the poorer classes. Indirect taxation provides more choice than direct taxation for the tax payer, who (if he wishes) can avoid purchasing heavily taxed goods and services by choosing those less heavily taxed. On the other hand, if goods in common consumption are lightly taxed, some revenue can be obtained from even the poorest. It is sometimes suggested that indirect taxation tends to be retrogressive—that is, to place a relatively heavy burden on the poor. This is not necessarily so, because it all depends on what products are taxed, at what rates, and whether or not lower rates are levied on the poorer qualities of goods subject to 'excise' (as such taxes are called). Excise may be charged on many goods which are not at all, or seldom, consumed by the poorer classes, whilst it is a common practice to charge lower rates on the coarser products usually consumed in villages. By careful choice of commodities, and differentiation between qualities, much may be done to adjust the burden in accordance with ability to pay, and to apply the principle of counterbalancing the effects of one type of taxation against another.

The outstanding forms of indirect taxes are excises imposed on particular commodities, and general sales taxes. The cost of collection can be minimized by assessment (and collection) at the wholesale, rather than the retail stage. In India and Pakistan excises have been extended to more and more products, and in India this head of revenue has now risen to first place.

Very many other indirect taxes are also levied, but normally each one contributes only a small proportion of both tax and total revenue. For indirect taxation it is advantageous on the whole to levy taxation on commodities and services for which demand is income-elastic, even though this aggravates the problem of raising revenue in times of depression.

Import and export taxes are, of course, also forms of indirect taxation, but have special features. Import duties may aim primarily at securing revenue, at protecting home industries, or at 'a bit of each'. They may also, as is common in developing countries, aim simply at cutting imports (especially of luxuries) for balance of payments reasons. In the latter case the revenue derived may fall so greatly that import tariffs cease to be one of the most fruitful revenue earners. Moreover, a really drastic reduction in imports greatly increases the dangers of inflation and smuggling.

An important reason for levying export duties has been the idea that if levied on supposed 'monopoly' or 'quasi monopoly' goods—i.e. those only or mostly produced in the exporting country—the foreigner can be made to pay the duty (by raising the price in foreign markets). This is apt to prove a short-lived advantage, because it stimulates the search for (and generally the discovery of) substitutes. In general, export duties are not good revenue-earners, whilst either they fall upon the producers (when foreign demand is elastic), or some reduction in exports results, at least in the longer-run. Both import and export duties have the merit of being easy to collect at customs barriers.

The non-tax revenue resources listed above are in several cases self-explanatory, although they involve administrative and some technical problems which do not concern us here. In other cases—such as foreign loans (see Chapter XII) and profits from governmental enterprises (see Chapter VI)—they are dealt with elsewhere. Something must, however, be said about domestic public loans, short-term governmental loans, monetary and exchange reserves, and deficit financing (already touched upon earlier in this chapter).

A government's power to borrow on the domestic market depends upon the existence of surplus funds in the economy which can be mobilized, upon the status and strength of the Central and Commercial Banks, and upon the existence of official and unofficial institutions which specialize in providing finance for worthy objects. A. R. Prest has shown[1] that in many undeveloped countries these facilities are strictly limited. India and Pakistan, however in this respect stand midway between advanced and 'very' undeveloped countries. In the modern sector there are normally surplus funds whose owners prefer to invest in 'gilt-edged'[1] loans even at lower interest rates, than in more risky investments at higher interest rates —a preference that is greater (though the amount involved may be smaller) during periods of depression, when the demand for liquidity is great ('gilt-edged' being highly liquid). The Central Banks are strong, so that the governments can borrow from them, and can (and do) also borrow from the commercial banks by issuing 'Treasury Bills' (which have recently become a very important source of short-term borrowing).

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[1] *Public Finance in Underdeveloped Countries*, 1st Edition, 1962, p. 104.

Small savings, which in the past have mainly been hoarded (and which otherwise would still be hoarded), can also be mobilized by such means as the Post Office Savings Bank and National Savings Certificates. This means that savings—large and small—can be attracted from private investment or hoarding to the public sector, the rates of interest necessary to provide an attraction depending upon the prevailing market interest rates and the state of the economy. It has sometimes been thought that public long-term borrowing imposes a burden on future generations because the Government is committed to repay the debt or to pay interest in the future to its creditors out of taxation. What actually happens is that when a loan is issued present purchasing power is diverted from the private to the public sector, whilst in future years the latter pays interest out of the then present purchasing power of the tax-payers to subscribers to the loans. Whether the nation benefits or not is a different question which depends on how the loan is used, but in no case do future generations hand over purchasing power to past generations! If the Government uses the money raised by a loan more productively than it would have been used if left in the hands of subscribers to the loan, the nation's income will be greater in the future than it otherwise would have been. If loans are used for the purpose of military aggression (and are blown up in smoke, or 'fall-out') the nation's income (apart from any other results) will be that much less. On the other hand, at any given moment, the more purchasing power is mobilized for the public sector, the less will be left for the private sector (just as is the case with taxation). Foreign loans are rather a different matter. In this case purchasing power is diverted from abroad to the government, and not from the banks or the private sector. When the time for repayment (or interest payments) comes, the then purchasing power of the nation is depleted, because money leaves the country. In this sense the future generation has its income (or purchasing power) reduced by the need to send part of it abroad to pay the debt incurred by an earlier generation. If foreign loans are productively used, the future national income may thereby be augmented even allowing for interest and repayments. It is, however, more than likely that part of the foreign loans will be used for present consumption (without increasing productivity) and that part may be wasted or inefficiently utilized, so that it is quite possible that 'repayment' will involve some additional burden on the generation that repays.

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[1] A 'gilt-edged' investment is one supposed to be perfectly safe (in the absence of an overwhelming disaster). The term is usually applied to government stock, but may sometimes be extended to other investments considered to be equally sound.

Just a word may be said about the role of governmental monetary and exchange reserves. The Government, or (more precisely) the Central Bank, normally keeps a reserve (partly in gold and partly in foreign exchange) against a domestic or balance of payments' crisis —such as a domestic 'run on the banks', or a failure to secure sufficient foreign aid to cover developmental import needs. A minimum reserve is normally legally required, but in times of financial crisis (as in India in 1957) some reduction (with legislative consent) may be made. Contrariwise, during the Second World War, India built up a large fund of 'sterling assets' from monies owed (but *not* paid for in goods at the time) in return for goods and other assistance supplied by India to the allies for war purposes. In other words India lent goods and other assistance to the Allies during the war, in return for which she received only blocked sterling (i.e. sterling that could not then be used). After the war this fund was gradually released and could be used to help balance India's external account.

Finally, something more must be said about deficit financing used for balance of payments purposes.

It has already been pointed out above that in a period of temporary domestic depression, when revenue receipts lag behind the budgeted revenue, resort may be had to additional borrowing rather than to a cut in the budgeted expenditure. This no doubt has an inflationary effect, but if the domestic depression is not deep-rooted, and if there is a secular trend towards an increase in production, whilst population growth and monetization of the rural sector tend to increase the demand for currency (the issue of which has been increased by governmental borrowing), inflation may soon be checked. Deficit financing of the external account is, however, apt to lead to an inflationary trend more difficult to check. If, for instance, planning involves a greater need than anticipated for imports essential for development purposes, or less foreign aid (of all types) can be secured than had been hoped, the problem becomes acute. By hypothesis, borrowing from abroad cannot be increased. Either monetary or foreign exchange reserves must be run down, possibly to a dangerous level, or imports must be cut—thus preventing the implementation of planned investment and/or creating a scarcity of consumption and other goods, or both. The result is a rise in prices and a budgetary deficit which can only be met by the issue of more currency. If this state of affairs continues, depreciation of the currency ensues, because the purchasing power of the domestic currency has fallen, so that (for instance) more rupees than before have to be given to pay for foreign imports, and to meet other overseas obligations. As has been said 'there is no old trick which new countries can learn sooner than that of debasing the currency'.[1] The check to foreign imports both holds up development and increases competition for (and hence raises the prices of) domestic products, and the danger of run-away inflation becomes imminent. Further price rises are anticipated, and confidence in the currency sinks lower and lower.

This is not to say that 'deficit finance' should not appear at all in an undeveloped country's planned balance of payments. As explained above (in connection with the discussion of a temporary domestic depression) some additional issue of currency can be absorbed by population growth, increasing monetization, and increased output after only a short lag. It is, however, difficult to assess how much currency can thus be absorbed, and hence how far it is safe to carry deficit financing. It is indeed argued by some authorities that a gentle annual rise in the price level is favourable to development, as it encourages enterprise and restricts the consumption of those earnings which lag behind price changes. This is, however, a hard saying for the poorer classes.

Turning now to the problems arising from the distribution of powers and revenue resources between the central government and the units in a Federation, the first point to notice is that it makes a difference, in practice, whether Federation has been achieved by linking previously sovereign bodies, or by delegating a degree of sovereignty to units previously subordinate to the centre.

In the former case the powers (and resources) transferred from the units to the federal body are normally strictly limited to those without which the central body would be unable to represent or act on behalf of the Federation as a whole. Possibly this may entail leaving with the units functions which could be more cheaply and conveniently carried out at the centre. Defence, foreign affairs, commercial treaties, import and export control and tariffs must be in the hands of the centre. It is cheaper and administratively more convenient that the centre should undertake other functions also, such as collecting income taxes, rather than that each unit should set up its own machinery for this purpose, and this is true even if the revenue derived is shared between the centre and the units.

If a federation is attained by the delegation of powers (and resources) to the units, those remaining with the centre are apt to be more extensive than in the former case. In India and Pakistan delegation took place, and the general principle was to give the units independence with regard to functions (such as school education, public health, agriculture and all welfare services) for which detailed, local knowledge is deemed to be an advantage. The original idea was also to transfer to the units resources sufficient to enable them to operate the transferred functions successfully. The difficulty was that many of the units' functions were expanding functions, requiring ever larger resources. This difficulty became much greater with planned development, because the latter necessarily entailed the need for expanding resources for both the centre and the units. To secure development, and to make ends meet, the Indian Central Government was obliged to resort to large-scale domestic borrowing and to foreign loans and aid, and to other devices, such as deficit finance, and the running-down of monetary and exchange reserves, which were either not open to the units, or (in the case of domestic borrowing) necessitated some control over the units' powers. In return, in order to enable development to be implemented in matters recognized as within the spheres of the States, the centre had to make grants and loans to the units, as well as to transfer to them part of the revenue derived from income-elastic taxes (such as income tax and certain excises), which had been assigned to the centre. In Pakistan, also, many of these policies have been adopted. It is not intended to suggest that these arrangements are the only ones that might have been made, but merely to show, by this example, what methods have been used to meet the problems arising from Federation. The problems of principle are; how can any substantial degree of financial autonomy for the units be secured?; by what means can tax and other receipts best be divided?; and upon what basis (or bases)—such as size of population, or relative 'need'—should aid from the centre be distributed between the units? Finally, there are as yet unanswered questions as to how far dependence of the units upon central financial assistance can be carried without completely undermining the whole concept of federal finance?; or whether large-scale planning is likely to be thwarted by federation? Here all that can be done is to call attention to the existence of these problems, and to suggest that periodic adjustment of the distribution of resources is clearly necessary with changing circumstances, as is also the co-ordination of the loan policies of the centre and the units. It is clearly difficult to generalize about the merits and demerits of the various fiscal measures that can be adopted to carry out the functions of public finance. Nevertheless the following conclusions emerge from the above short discussion.

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[1] A. R. Prest, *Public Finance in Underdeveloped Countries*, p. 110.

First, especially in a developing country where there is a secular upward income trend, it is advisable to rely, as far as possible, upon income-elastic direct and indirect taxes. These enable the public resources to benefit (without changes in taxes and tax rates) from increasing prosperity, and thus to keep pace with some of the expanding expenditure necessitated by development.

Second, the taxation of individual incomes, although it should be progressive, should not rise for the highest income groups to disincentive levels. The private sector in many developing countries will for long remain essential for experimental, risk-taking and general development purposes. Third, there is much to be said for levying a variety of taxes, and co-ordinating their balance as a whole, in the search for a 'fair' distribution of the burden. This refers not only to different types of taxation, but also to different methods of levying direct taxes on the better-off classes. Thus the wealth tax, levied on a progressive basis, which is less disincentive to profit-making and risk-taking than the income tax, can well be used to supplement revenue from the income tax on the wealthy, and may facilitate reducing top rates on the latter. Fourth, in times of depression, it is a mistake to attempt to balance the budget by cutting expenditure (and thus reducing spending power and increasing unemployment) or increasing taxation in general (which may further discourage enterprise). If increased taxation has to be resorted to, it may well take the form of 'luxury taxation', rather than of imposing any further burden on the products of developing basic industries. It may prove possible to borrow more from the (domestic) public, and thus help to balance the budget, because—by hypothesis—those with funds are chary at such times about making new investments. Deficit financing on external account should, however, be used with great caution, because of its inflationary effects. Fifth, so far as federal finance is concerned, care should be taken not to undermine the autonomy of the units completely. Probably the best forms which central financial assistance can take is grants (possibly on a matching basis)[1] for projects chosen by the units, and the sharing of revenue from the taxation of income-elastic products.

Lastly, the importance of parliamentary and administrative procedures, and of administrative implementation of policies in general (which cannot be discussed here), can hardly be too strongly stressed.

C. FINANCE AND CREDIT FOR THE PRIVATE SECTOR

Some of the problems connected with the various capital needs of business firms have been dealt with in Chapter VI. The financial problems of the public sector, and the various resources which can be tapped, have also been discussed (in Section B. above). In the present section, a brief review will be made of the special financial difficulties confronting firms in the private sector in developing, as contrasted with advanced, countries.

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[1] i.e. 50 per cent of the expenditure being provided by the centre, and 50 per cent by the units.

In India and Pakistan, for instance, it is only recently (mainly since Independence) that anything equivalent to the 'capital market' of an advanced country has developed. Previously capital for modern industries and other purposes was obtained from abroad (e.g. for the plantation, jute and some mineral industries) and from managing agencies (partly foreign, and partly domestically owned and managed). This substantial dependence upon foreign capital and institutions both limited the development of indigenous institutions, and directed new investment into industries and other projects favoured by foreign interests. In addition, the (then) small size of the modern sector reduced the advantages and profits to be gained from establishing institutions specializing in the promotion and financing of modern concerns. In recent decades the functions, stability and status of the Central and Commercial Banks have greatly increased. Joint Stock companies have expanded in numbers and capital and the Stock Exchanges have been strengthened correspondingly. Large corporations in nationalized industries (for instance, the Indian Life Insurance Corporation), in private hands, and in joint government and private (foreign and domestic) ownership, have been developed, and find it advantageous to invest some savings and reserve funds in other firms. There are, therefore, both more would-be and worthy borrowers, and more sources of loans or credit. Indeed, it has been said of India that for obtaining initial fixed capital for major industries and other large concerns, the earlier difficulties have now been overcome.[1]

Fixed capital may be provided by public or private subscription (i.e. purchase of shares and debentures), direct deposits (i.e. withdrawable loans), or by individuals and partnerships. It is, however, less easy for new ventures to secure credit on easy terms during the gestation period before profits begin to be reaped, or for old firms to secure additional capital for reconstruction and modernization. The result is that some firms may be undercapitalized, and may run into difficulties if any unexpected set-back occurs. Working capital can be obtained from a variety of resources, and well-established firms now have little trouble in this respect. If, in spite of progress along these lines the capital and money markets remain undeveloped in comparison with those of advanced countries (as was the case before Independence), special institutions can and have been established to provide finance or credit on easy terms, especially for new industries, the modernization of established industries, small-scale industries and agriculture. In India, for instance, there are the Industrial Finance Corporation (the first to be established), State Financial Corporations, the Industrial Credit and Investment Corporation of India Ltd.

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[1] N. Das: *Industrial Enterprise in India*, 4th Edition, 1962, p. 39.

(a privately-owned institution), the National Industrial Development Corporation, the Refinance Corporation of India (to assist the provision of medium-term finance), the National Small Industries Corporation, and the State Bank of India (especially concerned with agriculture). Pakistan has similar institutions. Great progress can, therefore, be made by such measures, the chief weaknesses likely to remain being the continued absence of specialized agencies for the promotion and issue of new companies, and the underwriting (i.e. guaranteeing) of their shares, when the latter are made available for public subscription. Small and medium-sized businesses are, however, likely to continue to suffer from shortage of capital, owing to the difficulty of getting trustworthy information about their prospects and the soundness of their management.

The need for stronger capital markets even in advanced European countries, especially in order to launch new issues—and to relieve the strain on the New York market—has been urged.[1] It seems that in this sphere the needs of developing countries are similar to those of many advanced countries. Indeed, the modernized sectors of India and Pakistan are already gradually building up a capital market by methods pursued in advanced countries. The main difference seems to be that in developing countries there is an even greater need, during the early stages of development, for specialized financial institutions (especially in order to serve more backward areas and industries) than in advanced countries.

[1] See *The Times* (London), July 4, 1963.

CHAPTER X

INTERNATIONAL TRADE

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The benefits which one country can receive by trading with another are exactly the same as one individual can receive by specializing in those economic activities which he can conduct best, and exchanging the profits of his labour with other individuals.[1] It is obvious, for example, that a man with a talent for medicine will do best by being a doctor and using his salary to buy groceries from those who are, in turn, endowed with a talent for the production and sale of groceries. Similarly, a whole country, like Pakistan, which is fitted to produce jute, will gain by exporting jute in exchange for, say, tin, which Malaya is best fitted to produce. These are examples of *absolute* advantages.

The theory of international trade introduces another principle, however, that of *comparative* advantage, which is rather more complex. It states, in effect, that even if one country is at an *absolute* disadvantage in producing tradeable goods, nevertheless, total benefit may still accrue from the country's producing, and exporting, that product in which its absolute disadvantage is least, in exchange for those goods in which its trading partners' productive advantage is the greatest. To take an example, let us assume that Western Germany can produce both bicycles and motor cars more cheaply than Great Britain, i.e. can produce both at a cost of fewer real resources. Nevertheless, if a British car used twice as many resources as a German one, while a bicycle used only one-and-a-half times as many, it would be profitable for both countries for Germany to export cars to Britain, and Britain bicycles to Germany. This principle may be illustrated by reference to the individual doctor and his secretary: a doctor may be both better at medicine and at secretarial work than his secretary; it will still pay him to specialize in medicine, and pay his secretary a wage, rather than to do both jobs himself, while the secretary, even though less gifted in both directions, is able to maximize her income by performing secretarial functions.

We may illustrate this principle of comparative advantage by taking an entirely hypothetical example. Let us suppose that both India and Pakistan produce jute and cotton, and that Pakistan has an absolute advantage in producing both. Such a position might be illustrated by the following table:

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[1] See Chapter II.

	Pakistan		India	
	Units per day	Days taken to produce 40 units	Units per day	Days taken to produce 40 units
Cotton	8	5	4	10
Jute	4	10	1	40
40 units of each		15		50

If exchange takes place between the two countries, Pakistan will obviously specialize in producing jute in which it is four times as productive as India, whereas it is only twice as productive in producing cotton. If the price ratio in the market is such that 2½ units of cotton exchange for one of jute, then:

Pakistan

Days required to produce 40 units of jute for own use: 10
Days required to produce enough jute to procure 40 units of cotton (i.e. 16 units of jute): 4
14

India

Days required to produce 40 units of cotton for own use: 10
Days required to produce enough cotton to procure 40 units of jute (i.e. 100 units of cotton): 25
35

The net gain from trade is now one man-day for Pakistan and 15 man-days for India, i.e. both parties have benefited from trading and specialization. How much advantage accrues to each trading partner will depend on the price ratios of the goods traded, which will, in turn, depend on the demand conditions for them. Such benefit may, of course, become greater as specialization continues, since, up to the point of diminishing returns, India may derive economies from specializing in cotton, and Pakistan in jute, which will lower the man-days necessary to produce one unit in both cases.

Naturally, to use man-days exclusively as a measure of resources used is a gross over-simplification. One needs some combined measure of all the factors of production used. Probably the best we can do to solve this problem is to use the different domestic price ratios in different countries, assuming that they will correspond roughly to the real (or opportunity) costs of production. It is possible, of course, that differing price ratios may be due rather to different structures of demand than to differences in cost. But it is unlikely that demand differences will in fact cancel out cost differences, i.e.

differences in factor endowment. It is unlikely, for example, that Canadian preference for eating bread would be so great as to make the price of wheat in Canada relatively higher than that of other commodities produced both in Canada and overseas. It should be noted that the principle of Comparative Advantage disposes of the familiar argument that countries with relatively low wages derive an 'unfair' advantage in international trade. However low the wages, a country cannot have a *comparative* advantage in all lines of production, but will be at a relative disadvantage in some.

A very important concept in international trade is that of the *terms of trade*. Usually this phrase is used to mean the *barter* terms of trade, that is, the physical quantity of imports which can be obtained in return for a given physical quantity of exports. This naturally depends upon the price ratio between the two. It is a matter of common knowledge that after the end of the Second World War the terms of trade of primary produce exporting countries remained favourable until after the end of the Korean War boom in 1954, since when they have declined. This does not *necessarily* mean, however, that primary producing countries must have been in a relatively worse position than industrial countries over the past decade. Another concept, that of the *factoral* terms of trade, may be even more important, in welfare terms. The factoral terms of trade relate to imports purchasable in exchange for a given input of factors, say, one man-year's work, to the exports produced by that same input. If productivity is increasing sufficiently fast, it can be the case that the factoral items of trade may improve while the barter terms are worsening. Exactly the same concepts, of course, are relevant between different sectors of the economy. In American agriculture, for example, the barter terms of trade are worsening, as agricultural prices fall relatively to industrial, but the factoral terms of trade may well be improving, since productivity per man in American agriculture has, in fact, been increasing faster in recent years than in American industry. A country cannot often do much by itself to improve its barter terms of trade. It can only raise price by restricting exports if it is in a monopoly position on the world market, and there are rather few such instances (Zanzibar has a monopoly position in the export of cloves). It can, however, do much to improve its factoral terms of trade, by raising productivity in its export industries.

The *balance of payments* consists of a balance sheet showing all the items due to a country on one side and all its debts to foreigners on the other. Like all balance sheets, it always balances in a strict sense, showing, ultimately, neither debit nor credit; just as if one has an overdraft at one's bank, the account is still 'in balance', one's debt to the banker balancing one's excess expenditure over one's funds deposited in the bank. The *balance of trade* is a constituent of the total balance of payments, showing the total value of exports, visible and invisible (e.g. shipping, receipts from tourists, etc.) against the total value of imports. The balance of payments includes, in addition, receipts from overseas investments, payments on loans from overseas, gifts to or from overseas, and accommodating movements of gold or internationally acceptable currencies, to cover the net deficit or surplus on the other items. Thus, if a country has a deficit on its balance of *trade*, that is, the value of its imports exceeds that of its exports, it must pay for it either by income from overseas investment or by the export of gold or other internationally acceptable currency (in practice, dollars or sterling) or, if it is fortunate, be paid for by gifts or loans from other countries.

Under the old Gold Standard mechanism, which operated throughout the world in the nineteenth and early twentieth centuries, the 'rules of the game' were simple. Exchange rates were fixed in terms of gold, and were not altered. Thus, one pound sterling remained the equivalent of so many rupees, however the balance of trade stood between Britain and India and Pakistan. If one country found it was losing gold, on balance, to others, it would restrict credit at home. This might occur, in part, automatically, if the country was also on the domestic gold standard, since then its volume of currency in circulation, based on the quantity of gold held, would shrink. But some countries, e.g. France, were on the international, but not the domestic gold standard. (That is, although she maintained the franc at a constant value in terms of gold, and therefore of other currencies, the quantity of her domestic currency was limited by a direct control over the note issue, a Frenchman being unable to claim gold in exchange for francs.) A surer, and more universal method of restriction, was to raise the domestic rate of interest. This had two effects. First, in the short-term, foreign funds would flow in, in response to the higher earnings obtainable, while short-term investment overseas would be checked. Second, in the longer-run, investment would fall as it cost more to borrow money, hence employment and incomes would fall and, since total demand would thus be decreased, prices would also ultimately fall. This would make exports cheaper in foreign markets, and tend to lead to their expansion, while home goods would become cheaper relatively to imports and tend to be substituted for them, thus lessening the flow of imports; at the same time, the absolute fall in the level of demand would also lessen the demand for imports. Exports would thus increase and imports diminish until the country concerned was in balance again. If a country was gaining gold, the opposite mechanism was applied. The quantity of domestic currency might increase, thus raising prices, and the interest rate would be lowered in order to stimulate investment, employment, income and prices. Exports would become dearer, and contract, and imports relatively cheaper, and expand, until a balance was reached in this case also.

The great advantage of this system was that it preserved the stability of exchange rates, and hence greatly facilitated free international trade. It is clearly greatly to an importer's advantage, for example, if he knows, when he makes a contract for goods in terms of pounds sterling, that their value in rupees will not have risen by the time he receives the goods and has to make payment. The major disadvantage of the system, however, which was partly responsible for its breakdown after the First World War, was that it compelled countries to manipulate their domestic price and employment levels in accordance with the requirements of world trade, rather than with the requirements of their own employment policy. It has been well said that 'the Gold Standard was not a device for ensuring the stability of currencies, but a device for ensuring that they should all be equally drunk together'. Thus, a country might be forced to deflate, i.e. lower its prices and reduce its employment level, simply because the economies of other countries were in a deflationary state. As Trade Union power became stronger, and social objectives changed, this was felt to be an intolerable state of affairs and economic nationalism became dominant.

There are two 'nationalistic' methods of dealing with a net outflow of gold. One is devaluation, and the other import restrictions. Both have been widely resorted to since the First World War. The effect of devaluation is to make one's exports cheaper in terms of the buyer's currency, and one's imports dearer in terms of one's own. Thus, exports should be stimulated and imports checked until balance is achieved, provided that there is an elastic demand for both exports and imports. A disadvantage may be that, if imports are in *inelastic* demand (e.g. food and raw materials in Great Britain, or capital goods essential to the development programmes of India and Pakistan), their volume may not be decreased, while their price will be raised. In such a case, the method of import control may be preferable, since it can be applied selectively, either by tariffs or quotas on non-essential imports. A possible disadvantage here, as in devaluation, is the provocation of retaliation from one's trading partners. Other countries may refrain from retaliation for two reasons: either altruistically, because they realize that a poor country is in greater need of protecting its foreign exchange position than they are themselves; or from economic self-interest. This latter case is a rather special one where the 'restrictive' country has a relatively inelastic demand for its exports and, at the same time, an elastic demand for imports. This is an unusual position, since most countries are competing with others in their exports on the world market, so that the exports of its trading rivals are substitutes, hence world demand for its own exports will tend to be elastic; whereas some of its imports from world markets will be irreplaceable from home resources, and will hence be in inelastic demand. The United States of America comes closest to the position of being able to afford a nationalistic trade policy on strictly economic grounds, since her economy is so self-sufficient that her imports tend to come into the luxury class and be in elastic demand (Britain's highest-valued export to the United States since the war has been Scotch whisky) whereas some of her exports (e.g. capital equipment to the developing countries) are in very inelastic demand.

A familiar argument for import restrictions, or for export bounties, is that of the 'infant industry'. An industry in a developing economy may not, in its early stages, be able to meet the blast of free international competition but, given time to lower its costs through improved efficiency, and possibly through the 'external economies' derivable from other industries which are developing at the same time, it may later be able to do so. If this is the case, then the cause of comparative advantage would best be served by protection in the initial stages, as was indeed practised by Western Germany and the United States of America in their periods of industrialization. From a practical point of view, three things must be said; firstly, it is again necessary to ensure that there will be no harmful retaliation; secondly, industries may be more efficiently protected by a subsidy than by a tariff, since the real cost of the former is a known quantity and hence it is more likely to be removed when no longer needed; third, it is important to see that pressure groups do not use this argument as a form of special pleading and succeed in maintaining the protection long after the infant should have grown up. The loss of national income in the present, by distorting the present pattern of comparative advantage, must be weighed against the possible gain in the future when a new, and more profitable pattern may be established.

The effect on the size of the national income is, in fact, crucial to all decisions concerning free trade versus a nationalistic foreign trade policy. Import restrictions to correct a balance of trade deficit, for example, harm the country imposing them by depriving it of taking full advantage of international specialization and division of labour. To that extent its real income will be lowered. To adopt the 'free trade' remedy of domestic deflation may cause unemployment, which will also lower real income, and it is a question of balancing the two effects against each other. It is important to remember, however, that full employment achieved by protectionist devices does not necessarily lead to the maximization of real income, while the unemployed can, in principle, be compensated by transfer payments, ultimately paid for by those who are in work.

INSTITUTE OF EDUCATION FOR WOMEN
Dept. of Extension
SERVICE.
CALCUTTA-27

CHAPTER XI

THE ROLE OF GOVERNMENT IN ECONOMIC LIFE

A. Introduction
B. To Plan, or Not to Plan
C. The Case for Planning in India and Pakistan
D. The Objectives of Planning in India and Pakistan

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A. INTRODUCTION

At the present day there is an obvious tendency—or fashion?—in advanced and underdeveloped countries alike for the role of government in economic matters to extend to almost all aspects of the economy. It must not, however, be implied that governmental 'interference' in economic affairs in the past has been small and narrowly defined.

On the contrary, in many past periods, and in various regions, the material (or 'economic') aspect has formed an integral part of social organization. Where the Government has been strong, centralized and its laws and regulations have been enforced by strict administration, control over the body politic has normally also included substantial control over economic institutions, the organization of production, exchange and trade, choice of occupations, and distribution of the good things of life. A share in the product of the soil has generally been extracted from the actual cultivators by those in authority (even if nominally in return for protection, and assistance in times of scarcity) whilst some form of tax or toll has been taken from those engaged in trade and other non-agricultural pursuits.

The extent and nature of the Government's role in economic life has naturally varied with the type of government and the structure of society (including that of the economy)—as also with the character and benevolence of those in authority. In particular, wherever or whenever population became dense, land more scarce, industries and trade more developed, and the opportunities greater for individuals to concentrate more wealth in their own hands, so also economic control by 'the authorities' tended to increase.

In Western Europe, for instance, before the Industrial Revolution, but after the introduction of a money economy, laws were passed not only affecting land-holding and cultivation, but controlling handicraftsmen and their guilds, whilst internal and external trade were subject to the payment of dues and duties, and often also to various types of restrictions, and to prohibitions. It was not until Britain, as the first country to industrialize and to carry on substantial world-wide trade, found it immensely profitable (in the mid-nineteenth century) to conduct overseas trade freely—and to expand output correspondingly—that the idea began to prevail (in Britain!) that the Government should confine itself to raising the revenue necessary for political, military, police, legal and administrative purposes, but otherwise should interfere with economic matters as little as possible. But even in Britain, although most of the earlier regulatory legislation had already been removed—because it had become inappropriate to the changing economic organization and methods of production—far-reaching industrial and social legislation of a modern type was passed (during the second quarter of the nineteenth century) before 'free trade' was achieved (in the 1850s). Elsewhere in Western Europe, although much out-dated agricultural and industrial legislation was repealed, 'free trade' made slow and limited progress in the face of British competition, which even stimulated protection in some countries.

In the twentieth century there has been a marked movement away from *laissez faire* (non-interference by government in economic affairs) even in countries—such as Britain—which had been its strongest advocates. In other words it was the period of (relative) *laissez faire* in general, and of a reduction in foreign trade barriers, in particular, that was exceptional, in advanced countries, although it is true that the powers of governments to administer and enforce detailed economic and social controls has become much greater today than it was in the past.

In undeveloped countries government tended to be less centralized, and had less power (largely owing to inferior means of communication and transport) to administer detailed legislation than in advanced countries, but, on the other hand, traditional and social conventions tended to be relatively strong (and certainly exercised strong economic control). Hence there tended to be less governmental 'interference' with economic matters, especially where there were large rural areas, inhabited by self-sufficing (and poverty-stricken) cultivators, remote from towns or seats of government.

In undeveloped areas, therefore, the idea that governments could do more to promote prosperity and development has gained strength only (relatively) recently, but has now culminated in the adoption of planning in a number of cases. It is worth noting, incidentally, that the public sector's share in national income and expenditure is, nevertheless, greater in some advanced countries which have no 'plans' than in most undeveloped countries which have adopted planning. To say that there seems nowadays general acceptance of the idea that governments should play a large role in economic matters does not, however, imply that this policy is necessarily the best under all circumstances. The economic policies pursued by advanced countries do not concern us here. The point to be made is that it is not far-reaching governmental 'interference' in economic affairs that is novel. What is (relatively) novel is the concept that a poor and economically backward country which has long been more or less static (from the point of view of average *per capita* income and the general standard of life) can be raised, by the adoption of economic plans, to a level at which the economy can develop cumulatively, and (eventually) without reliance upon external aid. It is this concept that must now be examined.

As is well known, planning can take two main forms. It may be undertaken by a totalitarian government which has secured power to enforce its decisions compulsorily, even if these conflict with the wishes—and often also the interests—of large sections of the population. It is not our purpose to discuss the methods and incidental results of autocratic totalitarianism. Let it suffice to say that the methods employed may result in striking economic achievements, but that these can only be secured by ruthless compulsion, involving the complete eclipse of individual liberty, the suppression of all opposition, and at times the sacrifice of many livelihoods and lives.

The second form is called 'democratic planning'. The concept is that it is possible to arouse nation-wide co-operation and enthusiasm, so that a democratic (or at least popular) form of government, and civil liberties, can be maintained at the same time as planning is carried out. What are to be considered here, therefore, are the arguments for and against the formulation of explicit plans in relation to the particular circumstances of a particular economy, to be implemented with the support of the bulk of the relevant population.

B. TO PLAN, OR NOT TO PLAN

The decision whether or not to plan is a policy decision depending upon sociological as well as economic considerations, because to plan necessarily involves far-reaching changes in social as well as economic institutions and customs. The decision, therefore, depends in any particular case upon the environmental conditions in the relevant country, and upon the objectives of the Government and, in a democracy, of the nation as a whole.

The main argument against planning is that it undermines the free working of the economic system under predominantly competitive conditions, which provides that consumers can make their wants known, and producers are guided to produce what is most wanted by price movements. This automatic system, it is argued, is more democratic than central planning, which makes provision for the availability of what the planners think 'the people' should have, rather than for what they want. Further, there is no reason to suppose that the planners are more efficient than private businessmen (whatever the size of the businesses) whose livelihood and success depend upon satisfying their markets. If planners make mistakes these latter are apt to have more widespread and enduring results than the mistakes of individual producers. Some opponents of planning also assert that in fact the plans so far produced are inefficient, and ignore economic principles, which results in the waste of scarce capital including the dissipation of foreign aid in ill-chosen investments.

It can, indeed, be agreed that to introduce planning for a flourishing, prosperous and developing country, whose standard of life ('even' for the poorest!) is on the upgrade, would be redundant, and might merely distort and dislocate economic activities and the mutual interaction of the various departments—or sectors—of the economy. In such a case it would suffice if the Government took (further) measures for the protection of the weak, the improvement of public services, and for other particular purposes.

History shows, indeed, that planning has not been adopted by countries with a satisfactory rate of development, and a definite increase in the welfare of all classes. Advanced countries, by definition, have already experienced economic development, often over an extended period. Because there is no need to engender development, the main aim has been to promote greater stability by eliminating the trade cycle, or reducing its magnitude, and thus also reducing fluctuations in the general level of prices and employment.

In war-time, however, the need has been felt in some countries to concentrate economic, like all other, activities upon winning the war —after making provision for the supply of sufficient food and consumption goods to maintain a war-time minimum standard of life. Under such circumstances the economic controls imposed (by the war plan) may greatly exceed those imposed by the plans of undeveloped countries. Recently, also, the check to the rapid rate of recovery (from the war) and of development, and the intensification of international jealousy, has induced certain West European countries to adopt specific plans, or measures akin to planning.

In undeveloped countries in which the more or less free working of the economic mechanism has failed to produce prosperity or engender cumulative development, it is reasonable to assume either that, in their case, the mechanism itself is defective or unsuitable, or that certain (removable) obstacles prevent it from working efficiently. Probably both explanations contain some truth. Is not the economic crisis in such countries similar in kind to that of advanced countries during hot and cold wars? Why should not the effort be made to remove the existing defects systematically, and far from casting aside economic methods and principles, to utilize the latter in order to set in motion the desired economic trends and adjustments?

The case for planning for development by certain types of undeveloped countries can, therefore, be expressed as follows.

The absence of cumulative development and long-continuance of the extreme poverty of the bulk of the population indicate the urgent need for fundamental reforms. It is futile to rely on the price-mechanism, unaided, to provide the mass of poverty-stricken consumers with their economic needs and wants, so long as their incomes are insufficient to enable them to compete for the scarce food and consumer goods, and thus offer producers the opportunity to make profits by serving an expanding market. The increasing rate of population growth in this type of economy suggests that in the future the situation may deteriorate rather than improve. The lack of capital equipment and of sufficient surpluses of output over consumption with which to acquire such equipment is an outstanding cause of inefficiency and low productive capacity in such countries, which means that special measures must be taken to acquire the requisite material and personal equipment. The Government (or the planning authorities) can help by undertaking in the public sector large-scale projects, with long gestation periods, that private enterprise could not afford, and in some cases would not find profitable (if, for instance, the chief benefits would accrue to the community as a whole, rather than in the form of profits to the promoter). In particular, planned investment is more suitable than private enterprise for multi-purpose projects, the construction of public utilities (such as railways, all-weather roads, irrigation works and waterworks). The same is true of the provision of public services—above all education and training—and the promotion of organizations (such as co-operative societies and community projects or village aid) designed to promote agriculture and rural development. Many examples could be given of how public investment could establish basic industries which would, in time, replace imports and expand exports, but whose establishment might be beyond the capacity of the private sector.

To perform these functions, which are essential to secure self-sustaining development, planning is necessary if sufficient finance is to be raised by mobilizing and centralizing savings, taxation, securing profits from enterprises in the public sector, and preventing waste of resources by control of luxury expenditure. Moreover, the second way in which planning can help in this field is by securing foreign capital either for specific projects or for development in general. This (if successful) will eventually produce the means of paying interest and repaying loans—if only by raising the taxable capacity of the population.

At this stage, however, a word of warning is required with regard to the common assertion that—apart from land (which cannot be created or borrowed), but which can be improved, whilst some at present uncultivable areas can be made cultivable, by means of capital investment—capital is the outstandingly scarce factor in undeveloped countries. Taken at its face value this assertion suggests that merely to supply finance will suffice to secure development. This is far from the truth. To be effective 'capital' must be absorbed, and must be accompanied by a number of co-operating factors. It might indeed be better to speak not simply of 'capital', but of the various factors needed to co-operate with labour in production. It has, for instance, been said that for capital to be effective it must be accompanied by skilled labour and management, and have access to power, transport, raw materials and component parts.[1] Bauer and Yamey quote with approval Professor Simon Kuznet's statement that 'the major capital stock of an industrially advanced country is not its physical equipment: it is the body of knowledge amassed . . . and the capacity to use this knowledge effectively'.[2] With regard to the necessity for absorption, it may be pointed out not only that capital may be misapplied, but even if it is correctly applied, full use may not be made of the results. Many examples of capital-waste of this type can be found. For instance early in this century a special inspection of factory equipment was carried out in the Indian continent. Many machines were found not in use, because no one could repair them and spare parts were not available. Artificial ventilation had been installed, in some cases, but was ignored; this was apparently due not to any special difficulties, but purely from apathy and reluctance to clean regularly. Again it is officially acknowledged that nothing like full use is yet made of the hydro-electricity and irrigation water provided by multi-purpose projects completed some years ago in India. No village water channels had been dug; or no connection had been made between the water supply and the villages whose fields were to be irrigated; and no industries existed or had been established within easy reach of the electricity supply. These examples illustrate the lack of 'balanced development' about which much has been written and said, and obviously point to waste of capital.

If, however, 'capital' is used as short-hand for 'capital accompanied by the means of proper use', then it is true that it is the most scarce factor in undeveloped countries, that it can be supplied by foreign aid, and—if supplied in adequate quantity (and properly used)—

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[1] See *Economic Journal*, March 1963: 'The Economics of Underdeveloped Countries' by W. B. Reddaway.

[2] *Economics of Underdeveloped Countries*, 1957, p. 129.

would do more than anything else to promote self-sustaining development.

The conclusion here is that, at least theoretically, planning could (under suitable circumstances) promote development. Whether or not it is an appropriate policy depends upon the particular circumstances, so that it can only be discussed realistically in relation to particular cases. In India and Pakistan—as has already been shown in Chapter I—the economic situation is such that a strong case for planning can be established.

C. THE CASE FOR PLANNING IN INDIA AND PAKISTAN[1]

Before Partition, even after the opening-up of India from the mid-nineteenth century onwards, although a few modern large-scale industries had become established, on the whole there was no significant improvement in the standard of life of the masses, whilst the proportion of the 'well-off' to the total population had hardly changed. The economy seemed to have reached an equilibrium at a very low level. The main reasons for this stagnation (except in the relatively small modernized sector) have already been discussed in Chapter I, and the continuation of these features which account for the lack of development in the past, form an important part of the case for planning.

It would be redundant to repeat the main reasons for the economic stagnation in the Indian continent in the past, and in India and Pakistan at the present day. They can simply be listed as follows: i.e. acute liability to physical disasters (especially failure of the monsoon); population growth leading to pressure upon and scarcity of land; increasing un- and under-employment, and an increase in the number of landless labourers; the failure of the multiplier to spread throughout the country the benefits that might have been expected from the investment of foreign capital and the presence of foreign entrepreneurs; the continuance of social institutions and customs inimical to economic modernization; lack of monetization in the rural sector; the continued dependence of some 70 per cent of the population on agriculture; and the lack of 'capital' (in the broad sense discussed above).

What had happened under British rule was that although modern forms of transport and a number of important irrigation projects had been introduced—so that both production and trade (internal and external) greatly increased—this brought little (if any) relief to the peasants, 'small' industrialists, village servants etc., a large proportion of whom lived on the margin of subsistence. The increased area under cultivation (and under irrigation) meant larger total crops, whilst the establishment of cotton textile mills and the increased output of some other consumption goods meant the greater availability of such goods also. But the growth of population—especially when, from 1921 onwards, the rate of growth rose sharply—and lack of any perceptible increase in the efficiency per head of those engaged in agriculture and rural industries meant that a much larger (and ever increasing) population was maintained at approximately the same standard of life as previously. Indeed, until the inter-war period, cereals were actually exported although the rural population was underfed, because the latter could not afford either to keep a larger share of their crops for self-consumption, or to buy more food—as the case might be.

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[1] The authors are well aware of the many differences between the economic circumstances and problems of India and Pakistan, and between their plans. Nevertheless, their economics are similar in type, so that similar arguments apply, although maybe with different strength and pertinence in each case.

During the inter-war period a point was reached—owing to the growth of population—when the total crop of cereals was necessarily consumed within the country in order even to maintain the existing meagre diet. Thereafter for a time the Indian continent was approximately self-supporting in the main food crops, but eventually became dependent upon imports. The population growth also involved increased pressure upon the land—a phenomenon that is a sign, rather than a cause, of poverty. This in its turn has largely accounted for the growth in under-employment and in the number of landless labourers in rural areas.

In other words it can be said that from about 1850 onwards, the Indian continent underwent a process of expansion—of the population, of output, of trade—but not of 'development' in the sense of cumulative, self-sustaining growth.

Under British rule attempts were made to improve agriculture—by research, the distribution of improved varieties of seed for most crops, and above all by the extension of irrigation—and eventually discriminatory protection enabled some addition to the limited number of successful modern industries (including the iron and steel industry). But the task of raising the whole economy to a higher level seemed beyond the power of such orthodox methods. Minor improvements, no doubt, could be made, and some individuals and sections oft he population might gain in prosperity. But for the bulk of the rural population the outlook seemed hopeless.

This situation gave rise to the popular concept of the 'vicious circle', which states that—other things remaining the same—poverty breeds inefficiency, and inefficiency breeds poverty. An expanding population (brought about by a decrease in the death-rate, due to reforms in public health and measures to relieve famine) and an increase in total output (as contrasted with output *per capita*) sufficient merely to maintain the former miserably low standard of life, merely results in more people being kept alive without any improvement in consumption, or in economic opportunities.

At the same time it was held that the Indian continent possessed economic potentialities—vast and varied natural resources, deft artisans, an unlimited supply of as yet unskilled labour, and commercial classes hard to beat in their particular spheres. With independence on the near horizon, new and better methods of breaking the vicious circle must be discovered. It was this situation that led to the introduction of planning (which had already been widely discussed during and just after the Second World War) after Partition.

The case for planning in India and Pakistan, therefore, rests mainly on the need to break out of a vicious circle, the threat of a 'population explosion' (as it has been called), and the increasing knowledge and understanding of what are the present defects in the economy and of how some of them could be removed—given the requisite capital (in the broadest sense) and power to modify economic institutions and customs. The example of how greatly and quickly planning in USSR—through the centralization of national surpluses and revenue—can expand a country's productive capacity, by appropriate investment, has also shown what planning can achieve, however little it is desired or proposed to emulate totalitarianism. The conclusion is that it was—and is—well worth while to attempt to emerge from a most depressing economic situation by planning, particularly if it is likely that, at least in the initial stages, foreign aid is likely to be forthcoming.

Clearly, however, a mere decision to plan does not necessarily lead to development. It can never be too strongly stressed that planning, even if based on democratic principles and aimed at improving the lot of the masses, must be efficient, appropriate, wisely conceived, and based on sound economic principles if it is to succeed. Otherwise, far from leading to self-sustaining development, planning may create more problems than it solves, and may even prove disastrous. This is because planning necessarily involves widespread interference with the price system and the general economic structure and mechanism. It is only if the new—or let us say 'adjusted'—mechanism can be geared to the underlying economic, social and psychological forces which must be systematically related to each other so that all work in the same direction, that planning can place economy upon a sound basis. However, considering how great were the defects in the economies of India and Pakistan before planning started, it should not be beyond the wit of man to devise something better.

The mechanical efficiency of planning is not, however, enough. The success or failure of a plan does not depend solely upon the insight and ability of the planners. It also depends on the power to implement the plan, which itself depends, in the first place, upon the existence (or provision) of suitably trained and experienced administrators, and the elimination of corruption. Moreover, it also depends upon the power of the plan (and of the planners) to arouse the enthusiasm and whole-hearted co-operation of the bulk of the population.

This does not mean that planning must be perfect from the first. Experimentation is unavoidable, as are some mistakes. But if planners are willing to learn from their mistakes and if due attention is paid to implementation and administration, there is at least a fair prospect of success.

D. THE OBJECTIVES OF PLANNING IN INDIA AND PAKISTAN

This is not the place—nor is it our purpose—to describe or give a critical appraisal of the Indian and Pakistani Five-Year Plans. It is, however, necessary to indicate the objectives of the plans,[1] because these necessarily affect the problems of planning. In fact (as will be seen) the measures necessary to implement different objectives conflict with each other, and thus actually create problems.

The underlying ideal is—as said above—to break out of the 'vicious circle' or, as is now usually said, to secure 'take-off' (a critical and, as far as possible, rapid movement away from an equilibrium, stabilized at a low level, to cumulative, self-sustained development; that is, a stage at which the rate of economic growth exceeds that of population growth, and enables ever-increasing rates of saving and investment). 'Self-sustaining' also implies that the economy must eventually attain a position which enables foreign debts to be repaid without checking development. This does not mean that foreign capital, techniques and technicians will no longer be required or welcomed, but merely that India and Pakistan will be able to pay for foreign financial assistance at prevailing world (commercial) rates—i.e. have achieved viability in their balances of payments. Private foreign investment and public foreign loans should, under such conditions, be easily attracted.

Hence the first objective of planning is to increase (and indeed maximize) the rate of growth of output (in the short- and long-runs), so as to secure a surplus of output over consumption large enough (if mobilized) to step up the rate of saving and net investment (in relation to the national income) requisite for self-sustaining development. Different authorities mention different rates of investment as requisite for this purpose, but from 12 to 15 per cent is probably a reasonable estimate.[2]

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[1] Although the objectives of the Indian and Pakistani plans are not expressed in identical terms, they are similar in essence and can be discussed in a generalized manner together.

[2] See W. A. Lewis, *The Theory of Economic Growth*, 1955, p. 208, where he suggests for India the need for net investment of 12 per cent of the national income.

To raise output to the required level it is held to be necessary to transfer some of the superfluous rural population to industrial occupations in the modern sector, and also to provide for a continuous increase in the rate of output in the future by increasing productive capacity, even though the necessary steps in this direction entail substantial investment which will not result in output for a considerable time. This means that another objective is to industrialize, and moreover to establish basic, mechanized heavy industries whose output per head (in the long-run) is high, and will also reduce the need to import. Further in the pursuit of efficiency (as judged by output per head) the aim is not only to transfer superfluous rural labourers to industry, but also to decrease the dependence upon agriculture, because normally incomes from agriculture are lower than those derived from non-agricultural occupations.

Unfortunately, large-scale basic industries—such as the manufacture of machines and the machine-tool industry, chemical industries, oil refinery, and the iron and steel industry—do not offer large opportunities for employment (and especially not for the employment of unskilled labour). As the creation of employment opportunities is another objective of planning, this in itself creates a conflict because widespread employment opportunities will not be provided by the establishment of basic industries. Other measures specifically to create employment, will have to be adopted.

This brings us to a related and still more general conflict—and problem. That is, measures designed to maximize output in the short-run, conflict significantly with those designed to maximize output in the long-run. The problem may be explained as follows. If capital is the scarce factor (apart from land, which cannot be imported or produced) it may at first glance seem that output would be maximized by spreading the available capital thinly over all sectors, and as many producers as possible (i.e. allowing for the fact that some real capital is indivisible). If this were done, short-run output might indeed be maximized, and consumer goods (including foodstuffs) might be substantially increased. But what would then be the effect on productive capacity (i.e. output in the longer-run), on the rates of saving and investment, on the ability to attract foreign capital, and on the national output in the longer-run? Large savings and investment in large-scale modern industries and public utilities which take time before they begin to produce, but which in the end greatly increase productive capacity, are greatest amongst the small group of wealthy individuals, large business firms and corporations and in the public sector. But if capital were 'thinly spread' it would not be available for large-scale projects, and the propensity to consume is so great amongst the great bulk of the population that some slight increase in output (and hence income) per head would mostly be consumed immediately, whilst there would be no large pools of savings to be used for investments to promote productive capacity in the longer-run. Indeed the rate of national saving and investment might even decline below its existing level. The only solution would be a compromise whereby planning would favour some (undefined) proportion of the total available capital to be used to raise productive capacity. This topic is pursued further in Chapter XII, under the heading 'Choice of Techniques'.

The last objective to be considered here is that of raising the standard of life of the masses and removing some economic (and social) injustices. To promote this objective, measures for the redistribution of incomes and opportunities would be necessary, and would conflict with those designed to maximize output and/or increase productive capacity. This is because expenditure upon welfare (in a broad sense) would restrict investment in projects to maximize output, and revenue raised (e.g. by taxation) for welfare purposes would reduce the incomes of the better-off classes, and hence also their power to save and invest. This would mean the diversion of resources from sections of the population who tend to save and invest, for the benefit of the poorer classes, without necessarily (or probably) increasing saving and investment by the latter. The poorer classes have a higher 'propensity to consume' than the better-off, which means that out of a given increase in income, members of the poorer classes tend to save a smaller percentage. Hence measures to promote the objective of redistributing income and raising the standard of life of the poor, necessarily conflict with those designed to maximize output (whether in the short- or the long-run).

Here again some compromise seems necessary, so that increase in output or some productive capacity would be sacrificed for the sake of improving the lot of the poorer classes. Alternatively (as adopted in Pakistan's first plan), any redistributive measures would have to be deferred until the increase in output reached a stage when such a sacrifice could be better afforded than at present.

On the assumptions that planning is feasible, that it is appropriate for India and Pakistan, and that it should be carried out so as to further the objectives just mentioned, Chapter XII will explain and discuss some of the chief problems to be faced by planners in India and Pakistan, and similarly placed countries.

CHAPTER XII

PROBLEMS OF PLANNING

A. The Strategy of Planning
B. The Choice of Techniques
C. Planning for Small-scale and Cottage Industries
D. The Role of Agriculture in Planning
E. Conclusions

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A. THE STRATEGY OF PLANNING

A 'plan' consists essentially of a systematic set of policies so designed and interrelated as to promote (and eventually achieve) stated, and, where possible, quantitatively measurable objectives, within a given period (or periods).

The plan can be expressed in purely quantitative terms (whereby the interrelationships of various parts of the economy and the final results of planning are worked out mathematically) or less formally, but using a number of quantitative estimates and ratios. The latter type uses measurements for the relevant constituent items, such as the targets set for the output of the various sectors, embodying the combined output targets for particular projects, industries, and public utilities etc. to be established. Anticipated rates of savings, capital formation and production from specific investments are also used in order to estimate what will be the final addition to national and *per capita* income within a given period (which, by convention, is usually five years). Quantitative measurements are also essential to show what will be the effect of the plan on imports, exports, the need for foreign capital, and hence on the balance of payments—which in some cases turns out to be the crux of planning. This is because in order to implement a plan it is normally necessary to import many items which cannot, as yet, be produced at home, so that the necessary plant, machinery or other goods can only be secured in exchange for exports, or by means of foreign loans and aid or private foreign investments.

Although tentative mathematical models have been constructed for some countries (including India and Pakistan)[1] which purport to immediately, whilst there would be no large pools of savings to be used for investments to promote productive capacity in the longer-run. Indeed the rate of national saving and investment might even decline below its existing level. The only solution would be a compromise whereby planning would favour some (undefined) proportion of the total available capital to be used to raise productive capacity. This topic is pursued further in Chapter XII, under the heading 'Choice of Techniques'.

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[1] See, for instance, Alak Ghosh, *New Horizons in Planning*, 1st Edition 1956; 2nd Edition (rewritten) 1960. John C. H. Fei, *An Analysis of the Long-run Prospect of Economic Development in Pakistan*, 1962.

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Although tentative mathematical models have been constructed for some countries (including India and Pakistan)[1] which purport to show by what alternative means the best results can be secured, obstacles exist which make it doubtful how far it is at present feasible or worthwhile to pursue such methods. The first great obstacle is the absence of sufficiently reliable and comprehensive statistical data. This applies, for instance, to estimates of the rates of increase in output to be secured from the allocation of investment between particular sectors and specific industries and projects, especially as these rates are affected by the choice made of techniques for carrying out such investments, and by the time lags between the decisions to invest and actual production. Such rates may also be seriously distorted—especially in the agricultural sphere (which is still of primary importance in India and Pakistan) by physical factors (such as a good or bad monsoon) beyond the control of the planners. Secondly, as seen in Chapter XI, some objectives may be social, rather than purely economic, with which the results of strictly economic planning may conflict. Thirdly, however carefully projections are made in the light of the complex problems involved, unanticipated changes (political as well as economic) may occur which may upset all calculations. These include, for instance, a rate of population growth greater than anticipated; physical disasters; external conflicts (such as the Korean War which seriously disrupted world prices and overseas demand); unforeseeable technical changes, such as the invention of artificial substitutes for raw materials; and price and policy changes in foreign countries, which may affect the availability and cost of imports, markets (and prices) of exports, foreign aid, and private foreign investment. The latter may also be greatly affected by domestic planning policies, such as changes in taxation. Some such events may have serious adverse repercussions on the balance of trade and of payments of undeveloped countries, which may provide a limit to the rate at which investment can be undertaken. Fourthly, it must be remembered that the adoption of planning necessitates a great increase in the body of administrators whose function it is to help to implement the plan. These have to be carefully chosen, trained and to gain practical experience. The best plan can be ruined by poor or corrupt implementation.

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[1] See, for instance, Alak Ghosh, *New Horizons in Planning*, 1st Edition 1956; 2nd Edition (rewritten) 1960. John C. H. Fei, *An Analysis of the Long-run Prospect of Economic Development in Pakistan*, 1962.

The conclusion is that there is no reason to suppose that plans based on mathematical models will prove more helpful or accurate than those drawn up more simply, based largely on common sense and experience, providing for considerable elasticity, allowing appropriate modifications to be introduced as required.

Any full discussion of the problems and methods of planning for India and Pakistan—let alone for undeveloped countries (even of a similar type) in general—would require at least a volume. All that can be attempted here is to indicate the types of problems involved, and some economic principles affecting their solution. No account will be given of the actual Indian or Pakistani plans, or to suggest specific modifications therein. The reader may, however, be helped to draw some policy conclusions for himself, from some of the economic principles mentioned.

The approach to, and methods of planning, inevitably vary from country to country. Here, however, attention will mainly be drawn to fundamental factors and problems that present themselves to most planners, but it is not to be implied that the order in which they are discussed is that in which they present themselves to, or have been tackled by planners.

It is clear that a first step must be to assess the existing economic situation, including recent economic trends. It is also essential early in planning to undertake surveys and research with the object of securing better quantitative and measurement data—for instance with regard to national and *per capita* incomes and their rates of increase, and rates of saving and investment (in relation to national income)—especially for matters normally considered to be valuable criteria of development.

When it is realized that it is unlikely that a plan—especially a first plan, which is bound to be experimental—will be completely implemented and successful in all respects, it is useful to have certain 'criteria' of development from which it is possible to judge whether the planning policies are taking the economy in the right direction, even if progress is not as rapid as had been hoped. Where there are diverse objectives, no single criterion of development can be discovered. But if national and *per capita* incomes are increasing, as also the rates of saving and investment, even if there is no progress in some other spheres—such as the proportion of un- and under-employed to the population of working age, or greater equality in the distribution of wealth and incomes—it can be assumed that it will subsequently be easier to afford measures to create employment and effect some redistribution of economic welfare. Other suggested 'criteria' are a reduction in relative dependence upon agriculture (as contrasted with other industries); an increasing ratio of money stock (or supply) to gross national product, as a rough measure of an increase in the monetization of the economy—a concept that, it will be noted, eliminates the effects of changes in the value of money; and a falling ratio of foreign debt-service payments (including both interest payments and repayments of principal) to export earnings.[1] This latter change reflects a step in the direction of attaining viability in the balance of payments.

The balance of payments is, indeed, a crucial matter for India and Pakistan. Increasing imports are required for developmental purposes, however great the efforts to establish import-substituting industries, whilst—especially in India—it is proving extremely difficult to expand exports rapidly. Foreign loans and some other forms of aid—even if granted on special terms—require 'servicing' for which—as some loans are interest-free for a period—the burden will be greater in the future than at present. Hence it is no exaggeration to say that balance of payments problems provide the most serious restriction to the attainment of self-sustaining development. Other important limitations to development are the scarcity (probably largely accounted for by lack of experience) of organizing, managerial and administrative ability—a characteristic common to most undeveloped countries.

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[1] For some discussion of these two latter criteria see A. R. Prest, *Public Finance in Underdeveloped Countries*, 1962, pp. 106, 114.

These criteria of development are all economic, and it is clearly far more difficult to secure measurable criteria of social progress, except with regard to employment and—to some extent—education. If, however, improvements can be achieved in all these directions, and also with regard to employment, it is fairly certain that some progress has also been made towards the other social objectives. So far as employment is concerned, this is because the economic position of a poor family will normally be more greatly improved if a previously un- or under-employed member secures full-time employment than if the earnings or output of those already employed rise by a fractional amount. If, in addition, there is an increase in the provision of (good quality) education—even if only primary education—for an increasing proportion of the population, after a lag of some years (i.e. until the educational courses have been completed by a substantial number of pupils) the productive capacity of the population should certainly increase. Another socio-economic rate to which much attention is paid, is that of population growth.

A glance at the official figures appertaining to these criteria (for some of which, however, the student will have to work out 'rates' from the official figures) will give a rough idea not only of whether the planning policies are leading in the right direction, but also as to where they are failing, and in consequence, what should be done in future plans to remove specific defects. In passing it may be stated that the application of these criteria to the results of planning in India and Pakistan up to 1963 show improvement (although not necessarily at a satisfactory rate) in many respects, but that the situation remains very unsatisfactory as regards employment, the balance of payments and the rate of population growth.

Target-setting for the end of a plan period may now be considered. Targets may be of two kinds; firstly, targets for rates of change in the chosen criteria of development, in particular in the rates of increase in national and *per capita* income, savings and investment: and secondly, targets for an increase in the (real) value of net national output as a whole (which, as was shown in Chapter VII is the same thing as the net national income), in each sector of the economy, and for each project and industry (including agriculture as a whole, and each main crop). The investment needed in each case has to be decided, and before the total investment for plan purposes—i.e. the size of the plan as a whole—can be determined, much pruning or postponement of particular projects may be necessary to reduce total investment to a figure which—from consideration of the revenue side of the plan—is thought to be possible of attainment.

Before the investment necessary to attain the target for particular projects can be estimated, it has to be decided which techniques of production (for instance those requiring much capital and little labour, or vice versa) are to be adopted. The latter decisions also influence the import-content of each project. The choice of techniques raises many important economic and social considerations, and hence is discussed separately below. The import-content of each investment and of investment as a whole is clearly of fundamental importance for the balance of payments.

Capital investment is not confined to investment in material equipment and goods, including—as must not be overlooked—the building up and maintenance of the stocks needed by all businesses, but has to be made in the training of scientific, technical, administrative and other personnel needed to implement the plan. Moreover, after material investments have been made, and personnel recruited and trained, annual expenditure is necessary for the up-keep, repairs and renewals of the material projects, and for the salaries and wages of the personnel. Hence as planning proceeds a substantial part of the finance that has to be raised is necessarily spent on up-keep, and not on new investment. If the cost of up-keep is underestimated either new investment has to be cut or more finance must be secured.

It has been suggested (as mentioned in earlier chapters) that instead of speaking of the scarcity of capital, it would be more realistic to refer to 'capital and the necessary co-operating factors', as scarcity, in many cases, also exists of skilled labour and management, component parts for ancillary processes and replacements, power, transport and even raw materials. It must also not be forgotten that very often output could be substantially increased by more efficient utilization of existing equipment.[1]

The choice of projects for any plan is limited by (amongst other factors) the need to complete those already started. Otherwise a great waste of capital would be involved. Also the preparation of plans for investment in certain projects may take longer than anticipated, thus prolonging the time-lag before output starts. Similarly, a lag may be incurred owing to difficulties in securing imports when needed.

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[1] cf. W. B. Reddaway, 'The Economics of Underdeveloped Countries', *Economic Journal*, March 1963.

It has also to be decided which projects and industries etc. shall be undertaken in the public sector, which left to the private sector, and also which projects shall be undertaken by the central or the local (e.g. 'State' or 'Provincial') authorities respectively.

This is, however, only the beginning of the multitudes of decisions that have to be taken. For instance, in considering State (or Provincial) projects, it has to be determined on what principles central contributions to investment should be distributed between regions. Should regional allocations be determined solely by centrally-planned objectives and priorities, or should an attempt be made to effect some redistribution between regions according to need? On the resource, or revenue side, estimates have to be made as to how much finance can be raised from, for instance, taxation, internal loans and small savings, the profits of nationalized industries (such as railways), foreign (public and private) loans, aid and investment, and (if necessary) deficit finance.

Only after considering all the complicated factors affecting planning (of which only a selection has been enumerated above) does it become possible to begin to determine, even approximately, the size of the plan as a whole. Moreover, the policies adopted in one sphere or department may affect the estimates in other spheres. For instance, very high rates of taxation of companies and private incomes may reduce the power and incentives to save and invest in the private sector, and hence the share of that sector in implementing the plan.

It is clearly easier to control allocations and uses of capital in the public sector, although much may be done through incentives (and disincentives)—working through the price mechanism—to exercise control indirectly and directly (for instances by such devices as prohibitions, quotas and licensing) over the private sector also. The present policy in India and Pakistan is to recognize both the necessity for, and the benefits of a large private sector.

Under existing circumstances it would be completely impracticable (as well as undemocratic) to bring the whole economy within the public sector. Apart from any other considerations, this would prove administratively impossible. It is also recognized that the price mechanism (working within the many planned restrictions imposed by government) can provide greater incentives to entrepreneurs and producers, and greater satisfaction (more quickly and effectively) to consumers, than would be possible for the public sector.

It cannot be stressed too strongly that, in a first plan, all the complex estimates and adjustments can be only very approximate. The uncertainties involved are due not only to the defects in data and to the other possibly disrupting factors already mentioned, but also to the need in a mixed economy (such as in India and Pakistan, where the size of the public sector still remains small in relation to the economy as a whole) to devise methods of inducing the private sector to carry out its share of the plan in the desired manner. This means that to a considerable extent first plans can be little more than target-setters.

In plans subsequent to the first, much can be learnt from the achievements and defects of the first plan, and from data collected and researches undertaken during the first plan and other plans previous to any current plan. Hence plans subsequent to the first can relate more closely the many aspects and departments of planning. It is then that 'co-ordination' becomes of primary importance. Co-ordination requires that provision must be made for output to be secured from one sector, or industry, at the same time as demand has arisen or been created for that output by new (or expanded) projects in other sectors.

Because different projects have different gestation periods—some requiring only months, whilst others need several years to come to fruition—what is called 'phasing' has to be undertaken. That is, in determining priorities for the initiation of planned projects, allowance has to be made for the time-factor, so as to provide for short- and longer-term needs. For instance, steel works take long to construct and set to work. In the Indian case one target not attained in the first plan was the output of steel and steel products. By the time the three planned new steel plants had been constructed and output started (early in the third-plan period) it was estimated that in the meantime expenditure upon foreign imports of steel products amounted to more than the total capital cost of the three plants.

Phasing is also necessary for the production of services and of personnel of the required skill and experience. It would, for instance, be most wasteful to construct (and operate) fertilizer factories before the means of transporting and distributing the fertilizers (possibly through new marketing channels, such as co-operative societies) had been organized. Waste would similarly occur if the construction of multi-purpose irrigation and hydro-electric plants were completed long before water channels connected the water with village fields, or industries had been established to use the electricity. The training of technicians and skilled workers also takes time, but without them either modern plant may be misused, or foreign experts have to be employed at the cost of foreign exchange. Phasing is also necessary to ensure that capital expenditure can be conveniently financed, and that unavoidable imports are available when needed.

Controversy has arisen over the need either to plan in detail for the co-ordination of all needs and supplies—which is termed 'balanced growth'—or to leave the provision of minor and ancillary needs to private enterprise, stimulated by the price mechanism. It is arguable that 'balance' is necessary where, for any reason, both needs and supplies can only be provided by the public sector. But if the private sector can respond—if stimulated by the price mechanism—it is best to leave it to do so, as this will be the quickest way to set the multiplier to work. Private entrepreneurs will then keep their eyes open to seize such opportunities, so that a stimulus will be given to the whole economy.

It is not within the scope of this volume to discuss in greater detail the manifold problems facing the planners. Certain general principles of outstanding relevance for India and Pakistan may, however, be summarized as follows:

(i) Material capital (or the finance necessary to secure it) remains a scarce factor, even though it alone does not determine development. Hence it must be used sparingly, and provision must be made for its full and efficient use as soon as it becomes available. Capital-expensive, prestige projects should, therefore, be avoided. This does not mean that no highly mechanized projects should be undertaken. Some such projects are necessary to build up future productive capacity.

(ii) The outstanding importance of the balance of trade (and of payments) entails laying great weight on the import content and export potentialities of investments. It has been said that investment expenditure generates its own savings, but this does not follow if such expenditure mainly creates income abroad. Hence on *a priori* grounds there is a strong case for giving priority to investments based upon the developing country's own resources, such as road construction and the digging of wells and water courses. It must not, however, be assumed that such investments will make no addition to imports. The additional employment given will create additional demand for foodstuffs and consumer goods. In so far as these are not domestically produced, the demand for imports will expand.[1]

(iii) It follows from the analysis given in Chapter XI that it is unlikely that India and Pakistan can—under existing conditions—secure 'take-off' from their domestic resources alone. Foreign capital and other assistance (e.g. technical aid) is, therefore, necessary in the early stages of planning. Foreign capital is likely to be most helpful (in the assumption that it is wisely used) if it is not tied to the obligation to purchase particular goods from the country providing the capital. This is because it is of the utmost importance—for balance-of-payments reasons—to be able to buy in the cheapest markets, quality for quality, and to be able to develop import-substituting products in the domestic market as quickly as possible. This is not to condemn foreign assistance for definite projects, provided that this type of aid does not form an unduly large proportion of total foreign aid, and does not entail the necessity to buy from abroad goods which could be produced domestically, or to purchase necessary imports from dear markets. Eventually the development of heavy and machine-building industries will help to solve foreign exchange difficulties.

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[1] See W. B. Reddaway, *The Development of the Indian Economy*, 1962.

(iv) It should never be forgotten that foreign loans and aid that entail interest payments and the eventual repayment of principal, should not (even if procurable) be allowed to assume proportions that defer securing viability in the balance of payments indefinitely. In other words planning must include full provision for interest payments and the repayment of capital at the determined dates. In the long-run what is needed most is 'trade, not aid'.[1] What India and Pakistan need is to establish import-substituting industries and to expand their exports, until they have secured self-sustaining growth. Once this stage has been secured an all-round expansion of international trade on a basis of mutual advantage arising from comparative costs can be safely pursued. In the meantime foreign trading partners can assist their development as much, or more, by opening markets for their products as by providing financial assistance. As has been well said: 'We cannot continue in good faith to recommend to less developed countries that they diversify their production . . . and then exclude from our markets the products which they begin to produce through the diversification process.'[2]

(v) Another general principle—mentioned in many contexts in previous chapters—is that planning should, so far as possible, be worked through, and in consonance with the price system and other fundamental economic mechanisms. This is in the interests of consumers, producers and administrators alike. If, e.g. prices are fixed irrespective of demand and supply conditions, the result will be either black markets or scarcities. If the price of factors of production (e.g. labour) are fixed arbitrarily, the result will either be to limit supply or to raise costs of production and check development. If interest rates or rents are subject to legal maxima, it is impossible in practice to enforce the law if competition for capital or land is so great that borrowers and tenants willingly give more (in some disguised form) than the fixed maxima. If the level of taxation ignores the need to provide incentives, either investment (and development) will be checked, or avoidance and evasion will be stimulated (or both). The above statements clearly over-simplify the policies likely to be adopted: e.g. price fixation is normally accompanied by other measures—such as quantitative controls—designed to assist implementation. But such policies raise other difficulties. More administrative interference involves higher costs and often leads to corruption. The fact remains that although it may be possible to overcome the difficulties of implementing policies which aim at altering the price and other economic mechanisms, the measures adopted cannot be successful unless attention is paid to the way in which these measures work. Moreover, to look at this matter more constructively, economic policies aimed at diverting efforts into directions in consonance with planned objectives, can work most effectively, and simply—whilst also avoiding disastrous obstruction from those concerned—if they are carried out by the use of incentives and disincentives, rather than by compulsion.

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[1] It is interesting to note that some authorities suggest that 'trade follows aid'!

[2] Mr George Hall, Under-secretary of State, USA, quoted in *The Times* (London), December 1, 1962.

In addition to these broad conclusions it is desirable to discuss more fully than has hitherto been undertaken, certain topics of outstanding importance to India and Pakistan, which also affect policy decisions closely. These topics are certain aspects of the agricultural situation affecting the formation of planning policies for agriculture, the role of small-scale and cottage industries, and the problems involved by the choice of techniques. These three topics will, therefore, now be discussed in turn.

B. THE CHOICE OF TECHNIQUES

As explained in Chapter V, the entrepreneur's function is to combine the factors of production and bear the financial risks (arising from uncertainty of many types) of enterprises designed to earn profits. How best to combine (and organize) the factors for any particular project is the problem of 'choice of techniques'. A given output of any product can be secured by combining the factors in varying proportions; for instance, much (little) land with little (much) labour and/or capital; much (little) machinery and plant with little (much) labour. It cannot, however, be assumed that one factor can be substituted for another to an unlimited extent. Some factors—e.g. capital goods—are indivisible except into large units, whilst a minimum quantity, or proportion, of each factor is necessary for any production to occur. An agricultural crop cannot be produced without some land, some labour, and some tools; to produce manufactured goods a site for the factory workshop or cottage, raw materials, some labour and some implements or machinery are necessary. The problem is what criteria to choose in order to decide, in any particular case, what combination of factors will be most efficient.

The first point to be settled is the sense in which the term 'efficiency' is to be understood. In its first sense 'efficiency' is expressed in quantitative technical terms. In this sense the most efficient method of production will be that which (at a given state of technical knowledge) will result in the maximum quantity of output, per unit of time, from inputs of productive services (measured quantitatively) per unit of time. The technical relationship between such inputs and outputs is termed the 'production function'. This sets out the quantity of output capable of being produced from each and every set of inputs, which thus reveals what combination of the factors of production will result in maximum output.

In its second, economic, sense 'efficiency' refers to values, not quantities, i.e. the relationship between the value of products (outputs) and the value of productive services (inputs) utilized. Economic efficiency, therefore, is greatest when the value of products minus the cost of the factors of production (or productive services) is maximized.

The quantitative technical relationship between inputs and outputs makes no reference to the prices either of products or of the factors of production, and it follows that it also ignores the nature and size of markets for the products, and the relative scarcity (or abundance) of the factors. One weakness of this concept is that there is no way of adding together the various elements comprised in total output (if there are more than one product or various qualities of one 'product') or in total input, except by pricing the outputs and inputs. Nevertheless technicians in an advanced country may be agreed as to what is the most technically efficient method of building (for instance) a bridge of a particular design, or of constructing a particular type of machine. As such technicians are working in and for an advanced country, it can perhaps be assumed that implicitly they also take into consideration the market for their products and the availability of the factors of production.

When it is a question of introducing into a developing country a new project or industry, the techniques for which have been developed in an advanced country, it is likely that the suitability for the developing country of techniques judged by technical, as contrasted with economic, criteria, will vary greatly. What is needed in a developing country is to maximize the value of output after deducting input costs. The estimates involved, mainly owing to the relative scarcity (and high price) of capital, but abundance (and therefore low price) of labour in developing, as contrasted with advanced, countries, are likely to differ very widely for the two types of economies. To adopt techniques favoured in the advanced countries may, therefore, involve an unnecessarily high cost and a waste of plentiful (and unutilized) resources. As Bauer and Yamey say[1] there is no use in recommending policies that 'may be efficient in terms of some technical standard' but are 'wasteful of scarce resources' and 'inappropriate at the level of technical achievement' in the relevant country.

In addition, the adoption of certain techniques may necessitate imports of plant and machinery not domestically produced, and also cause difficulties with regard to maintenance, repairs and spare parts. Such imports introduce balance of payments considerations, which may weigh strongly against the choice of these techniques. Furthermore, a high import content reduces the multiplier effect of the new project for the developing country. The benefit of the additions to incomes from employment given by orders for plant or machinery will go to the country from which imports are obtained, and will be spread there, by the multiplier. The addition to the national income generated by the new project will be proportionately reduced. Under these circumstances the planned objectives of increasing employment opportunities and reducing inequality of incomes will not be promoted.

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[1] *The Economics of Underdeveloped Countries*, 1957, p. 218.

In developing countries, where capital is scarce and labour plentiful, the most discussed criteria for the choice of techniques are the so-called 'capital-output ratio' (that is the relation between the value of capital invested and that of output) and the 'capital-labour ratio' (that is the relative use made of capital and labour). Techniques with a high capital-output ratio are usually, but not invariably, also those which are capital intensive in relation to labour (i.e. have a high capital-labour ratio). They also tend to be those with high technical efficiency, favoured in advanced countries. Here it is necessary to be explicit in defining 'capital'. Sometimes 'capital' is used in the sense of fixed capital only: sometimes in the sense of the total finance, or expenditure, required to generate additional output. The total financial requirements of all types is what matters to developing countries, where capital is scarce whether for embodiment in fixed capital, or for the organization and administration of the varied operations involved. Calculations based upon the relation of fixed capital to the value of output may be very misleading from the point of view of total expenditure required. For instance, schemes to promote small-scale and cottage industries may require little fixed capital, but considerable expenditure upon their organization and administration. They may also require research into the relative promise of various industries, and into the best hand-machines to introduce. Expenditure upon overheads may greatly exceed that upon fixed capital. It would, therefore, be a mistake to choose such schemes merely because their (fixed) capital-output ratio is low. Indeed, such schemes, although technically labour-intensive, may also be capital (in the broad sense) intensive, if labour productivity (and hence the value of output per worker) is very low—as is said to be the case for hand-production of paper and cotton textiles.[1] On the other hand, it should not be overlooked that such schemes generate additional incomes not only amongst those directly employed in the industries assisted, but also amongst those employed in the organization, research and administration involved. The earnings of the latter should also be included in the estimates of money incomes generated by these projects. If this is done, however, if or when the incomes generated exceed the value of what is produced, the result will be inflationary: i.e. the demand for goods will be increased relatively more than the output of goods so far as this particular project is concerned.

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[1] See George Rosen, *Industrial Change in India*, 1958, p. 51.

When, however, it is a case of comparing the capital-output ratios of different industries or plants, all of which require highly mechanized equipment, the 'capital' required may—without much danger—be measured in terms of fixed capital. This is because the fixed capital accounts for a large proportion of total expenditure, and can be more accurately assessed than the other capital costs.

It is worth noting—as George Rosen points out[1] that—whether 'capital' is, or is not, interpreted as 'fixed' capital—the output secured from additional investment is not strictly the return on capital alone, but refers to the additional output secured from all the factors of production utilized.

In practice there is a tendency for techniques with high capital-output and capital-labour ratios to be used for modern industries and large-scale projects in general. This is partly because such techniques are either to some extent unavoidable, or are at least technically appropriate (if only as time-savers), and partly because the economics of large-scale production can thus be more readily secured. Hence where capital is scarce, the priority given to various projects and industries may prove more important than the choice of techniques for projects and industries which it has been decided to undertake.

The arguments so far advanced tend to suggest that, normally, developing countries would gain by choosing techniques with low capital-output ratios and high labour intensity: that is, capital being scarce it should be combined in small doses with as much labour as possible (certain projects such as oil refining and hydro-electric plant cannot adopt labour-intensive techniques).

An opposed, and weighty argument is that, although this choice might maximize output, incomes and employment in the short-run, it would not have this effect in the long-run. The difference between short- and long-run effects is explained mainly by the fact that the surplus of the value of outputs over inputs would fall into different hands and be differently used, according to whether the chosen techniques were capital intensive or the reverse.

The profits, or surplus, arising from an enterprise utilizing a capital-intensive technique (in relation to both output and labour) would tend to be concentrated in the hands of entrepreneurs and other shareholders. Such enterprises (if successful) tend to result in large savings, at least part of which is reinvested in the modern sector (and often ploughed back into the same enterprise). This builds up productive capacity, and tends to lead to cumulative savings and investment. The adoption of technically efficient techniques (which are normally highly capital-intensive) tends to maximize productive capacity in the long-run, and is also conducive to industrialization. Contrariwise, the adoption of techniques with low capital intensity, tend to increase employment and the demand for unskilled labour, thus distributing much of any surplus secured amongst a large number of people, many of whom belong to the low-income classes. These latter, owing to their low standard of life, tend to spend any income-increase on foodstuffs and other consumer goods, or on jewellery, monetary hoards, and social ceremonies. Their savings per head and in total tend to be small, and not to be invested in directions which increase the productive capacity of the nation.

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[1] *Industrial Change in India*, p. 49.

C. PLANNING FOR SMALL-SCALE AND COTTAGE INDUSTRIES

Many undeveloped countries include in their planning the restoration or expansion of small-scale and cottage industries. The main objectives are (i) to create employment; (ii) to increase the efficiency—by introducing improved techniques—of those already employed; (iii) to promote the decentralization of industries, and hence establish more 'growing points' from which development can spread; (iv) to reduce the concentration of economic power; (v) to afford greater opportunities for the development of 'latent resources' (especially in the form of entrepreneurial and managerial ability). The arguments in favour of investment in such industries are clearly closely connected with the concept (discussed in Section B above) that as capital is scarce, projects with low capital intensity should be encouraged. All that need be said here, on this latter topic, is a reminder that investment in industries with small fixed capital may nevertheless have a high expenditure-output ratio.

The economic problems facing small-scale industries, their role in relation to development, and whether they can either be set on a profitable basis, or be assisted at a cost deemed worth paying for the sake of the employment created, depends on the type of industry and the particular circumstances.

There are three types of traditional small-scale industries: (i) cottage handicrafts producing for the workers' own needs and for local markets, many of the workers being also engaged in agriculture; (ii) small rural and urban workshops, supplying local markets; and (iii) artistic handicrafts, mainly found in urban areas (including large cities), supplying high quality and high priced goods for prosperous customers in domestic and overseas markets.

Cottage handicraftsmen produce coarse quality but low-priced goods. Earnings per hour and per worker are extremely low, so that full-time work (were it available) would not provide a living, but normally the craftsmen do not work to capacity, even in slack agricultural seasons, owing to their limited markets. As, however, the villagers are extremely poor, any addition to their incomes (after deduction of costs), however meagre, is worth their while. Owing to under-employment, leisure is in over-supply.

The small rural and urban workshops also use primitive tools and methods, but may serve larger markets and produce better quality goods. Even so, they do not normally produce to capacity. There is, of course, no clear-cut distinction between cottage and workshop handicrafts, and the same goods may be produced by each.

The artistic handicrafts—although a number of them have declined in prosperity—are in quite a different position. Their products do not compete directly with modern factory products, but appeal to customers who value their special qualities and are prepared to pay accordingly. It is possible to secure or develop foreign markets for such goods, but an extension of such markets may prove unstable, because of the frequent changes in 'fashions' in advanced countries.

Many surveys have been undertaken of the conditions and prospects of particular small-scale industries. These suggest, on the whole, that—apart from the artistic industries—only a few have sufficient potentialities for becoming efficient and expanding their markets to make it worthwhile to treat them as 'infant industries' that will eventually stand on their own feet. It must be remembered that in the past advanced countries also had similar handicrafts which, with the coming of industrialization, have since decayed and largely disappeared. For a time, however—and it may be a long time in India and Pakistan—some handicrafts may be capable of providing livelihoods if certain common defects can be remedied.

There are three principal defects that render it difficult for small-scale industries to compete in price with larger-scale concerns. These are lack of credit (or high interest rates), poor marketing facilities, and relatively high prices for raw materials, because they cannot buy in bulk. All three difficulties can be overcome by co-operative organization, which is particularly suitable for the provision of credit, marketing in common, and bulk purchase of raw materials. The Government can help to enlarge markets by organizing exhibitions and emporiums. In addition, some small-scale industries might be able to pay their way only if—in addition to the removal of the defects mentioned above—improved hand-machines were introduced (research has already led to the invention of many such machines).

The principle, therefore, emerges that subsidies, or other assistance, should never be given unless accompanied by some improvements in techniques and organization. Continuous supervision (and research) would then be necessary in the sense of introducing better machines and methods of organization as these become available. By these means efficiency, and incomes, would continue to increase, whilst as development proceeds (and average consumer incomes rise) demand will be diverted from poor to better quality goods, and towards a greater variety of products. The conclusion is that a case for assistance (of one kind or another) can be made out for a number of selected small-scale industries—provided certain improvements are adopted—but that to subsidize all and sundry would merely entail an immense waste of capital, which would hinder rather than promote the development of the economy as a whole. Limited expenditure for the sake of maintaining or giving employment is, however, worth while, even if in the very long-run the assisted industries are bound to disappear.

A fourth, and the last, type of small-scale industry to be considered is the workshop or small factory producing not traditional goods but those required by the modern sector of the economy.[1] Here the market consists of large-scale concerns which find it convenient to place orders for special parts of their final products with small firms specializing in the production of such accessories, for which the optimum scale of output is small. The small factory may use power (especially electricity) and modern methods, but can perhaps economize in building, the provision of welfare services, and the remuneration of the workers. Small firms may also undertake ancillary services, such as repairs. This method of contracting out by large to small firms has proved very successful in Japan, and is suitable for a number of (broadly) engineering industries.[2] It must, however, be introduced at the same time as new large-scale industries or factories are established. If the large concern has provided for the production of 'accessories' itself, contracting out is unlikely to be adopted subsequently.

Dhar and Lydall find that newly constructed small modern factories require more capital as well as more labour in relation to output than large concerns.[3] But some possible economies in running costs have already been mentioned, whilst they may be able to use existing workshops, and to secure local labour not requiring new housing. One advantage certainly arises when residents within reach of the new large factory can transfer their activities from declining traditional industries to the production of modern requirements for which demand is increasing, without the need to migrate or a change in their mode of life. It is hoped that the growth of small-scale factories ancillary to modern plant may provide an opportunity for latent talent to make good. As Dhar and Lydall say (p. 86), the policy should be not to create small units 'for their own sake, but towards a general improvement in the efficiency of existing enterprises and the creation of opportunities for enterprising new firms to grow'. The general principle thus emerges that, normally, assistance to small-scale industries and firms should be considered as a transitional policy, designed to reduce their costs, remove special disabilities, and gradually increase their efficiency. Various measures of assistance are included in the Indian and Pakistan plans. The most hopeful seem to be the giving of technical advice (based on research) and the encouragement of co-operation. It might be helpful to extend hire-purchase. The least satisfactory method (adopted notably for the Indian Cotton Textile Industry) is to assist unprofitable small-scale production at the expense of prosperous factories (especially if the industry has important export markets), not only by reserving part of the domestic market for the former, but also by preventing the modernization and expansion of the factories.[1] If the small producers are to be helped, a direct subsidy from central revenues would be a preferable method, as this would at least permit the factories to adopt the most modern techniques, thus improving their opportunities in foreign markets.

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[1] See P. N. Dhar and H. F. Lydall, *The Role of Small Enterprises in Indian Economic Development*, 1962.

[2] See *Current Problems of Planned Economy* (i.e. five years of research by the National Council of Applied Economic Research), 1962, pp. 56, 57.

[3] *The Role of Small Enterprises in Indian Economic Development*, Chapter V.

D. THE ROLE OF AGRICULTURE IN PLANNING

Although it is not within the scope of this volume to discuss the problems of particular Indian or Pakistani industries, something must be said about the very special, and especially difficult, position of the greatest industry: i.e. agriculture.

Agriculture is, and for long is likely to remain, the predominant occupation in both countries, and that which contributes the largest share of the national income—although that share is disproportionately small in relation to numbers occupied. It is true that under planning there has been a substantial increase in total agricultural output (including that of the main food crops) but this can be largely attributed to the construction of new irrigation works, the reclamation of land (previously inaccessible, or weed-infested, or waterlogged and saline) and a number of good monsoons, rather than to increased yields per acre. Yet large annual imports of cereals are necessary, and form an important element in the balance of payments problem.

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[1] Compare Chapter IV D, p. 85.

It is claimed that yields per acre have begun to increase, as might be expected owing to the large planned investment in agriculture and irrigation, including (for instance) the provision of better seeds and fertilizers, the construction of rural roads, the organization of co-operative societies and community projects (or rural or AID[1] in Pakistan), and the promotion of democratic rural self-help and development in general.

Nevertheless it is generally acknowledged that to improve the standard of cultivation throughout the economy as a whole remains one of the most intractable problems. Moreover, low yields per acre cannot be attributed mainly to scarcity of capital, because it has been estimated that yields could be raised by at least 50 per cent simply by the general adoption of well-known methods, involving a minimum of capital investment.

So far, however, full advantage has not been taken of the opportunities for improvement afforded by governmental policies. Better methods of cultivation have been adopted in certain areas only; for instance, those to which irrigation has been extended, and those inhabited by special classes of 'good' agriculturists, who were already relatively prosperous and enterprising. No doubt, amongst the latter classes price and other economic incentives work as effectively as they do in the modern, non-agricultural sector. But this is not always the case in the rural sector as a whole. In some neighbourhoods with similar physical characteristics, villages are found with prosperous cultivators, well-housed and well-fed, side-by-side with miserable groups of hovels, inhabited by emaciated, poverty-stricken wretches, often eking out their existence on one meal per day. Hence, although in some cases the targets for particular crops have been fulfilled, great difficulty has been experienced in stimulating enthusiasm and a new outlook amongst the great mass of rural dwellers, whilst it is imperative to do so if the rate of increase of total output is to keep ahead (let alone 'jump' ahead) of the rate of growth of population, and if agriculture is to contribute its share towards the planned increase in the economy's savings and investment ratios. It is, therefore, a safe prediction that—other things being equal—self-sufficiency in the main foodstuffs still remains on the far horizon.[2]

It is a fact that in almost all countries (except where the 'industrial revolution' has taken the form of the 'industrialization of agriculture') the value of output (and, therefore, of income) per head is less in agriculture than in other industries, or in commerce—partly because farmers have been slow to adopt innovations. Also, the prices of agricultural crops fluctuate more than those of other products—because demand and supply are relatively unelastic in the short run.

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[1] i.e. 'Agricultural and Industrial Development'.

[2] See, for instance, R. P. Sinha, *Food in India*, 1961.

If the harvest is exceptionally good, price has to fall greatly to induce equivalent purchases, whilst once a crop is sown, the output cannot be greatly altered however price may change. Moreover, farmers tend to benefit little, either in India or Pakistan, from either an exceptionally high price, or an exceptionally good harvest. In bad seasons when prices rise, after providing for minimum family consumption needs, the small marketable surplus multiplied by the higher price per unit, may yield a lower income than is secured in a 'normal' year. When the harvest is good, prices fall, and—even though the family may eat better—the larger marketable surplus multiplied by the lower price per unit may bring in no higher money income than that of a 'normal' year. This situation provides a strong argument for governmental 'intervention', aimed in particular at increasing yields per acre whilst also improving the marketing system, so that the larger marketed surplus may reach the cities and industrial centres which could then be fed from domestic supplies, instead of largely from imports. (It has been estimated that in India the annual needs of large urban areas are about equivalent to imports.) This would ease the balance of payments, and if the farmers were not exploited by middlemen, would also tend to raise their incomes. In addition, an increase in marketable surplus would stimulate monetization, thus extending the use of the price mechanism in rural areas.

The price policy suggested by this situation is to introduce some form of price support, or price stabilization, which, although it would not stabilize incomes under all circumstances, would at least tend to stabilize them in years of good harvests (by preventing disastrous price falls). In bad seasons purchasers of foodstuffs would gain, but other measures would be needed to assist those with exceptionally low marketable surpluses. Co-operative crop insurance might be the solution. The scheme might take the form of fixing a minimum price for each main crop at which the Government would undertake to purchase any quantity offered. The Government would by this means build up a stock-pile, which it would release on the market when a short harvest led to a price rise. The Government might also undertake to sell from its stock unlimited quantities at a fixed maximum price. If the policy was successful this would stabilize prices between the minimum and maximum range, whilst allowance could be made in fixing prices periodically for any change in the general level of prices.

The objection to this policy is that in the past various national and international price stabilization schemes have failed because they have tended to result in either a continuous rise in stocks, or in inability to amass sufficient stocks to meet the demand in years of harvest failure. Under Indian and Pakistani conditions a continuous rise in stocks seems unlikely, but it might well be that stocks became exhausted in a bad year, so that imports would have to be made (or increased) at the cost of pressure on the balance of payments. A number of policies to raise or sustain agricultural incomes have been more or less successfully adopted by advanced countries,[1] but many of these are inappropriate for India and Pakistan, where the short-run need is to increase yields per acre and total output, rather than income per cultivator (as is desired in advanced countries), although it would plainly be desirable to promote both objectives. An increase in income per cultivator might well be promoted by the mechanization of agriculture (at least in physically suitable areas). But this would necessitate an increase in the average size of holdings, or collective farming, or an expansion of the functions (and membership) of co-operative societies to a point at which they could secure all the advantages said to be derivable from collective farming.

The objections to a policy of this type are the cost of capital involved, the probability that yields per acre and total output would fall and the certainty that a large addition would be made to un- and under-employment if machines replaced men. It has been said that (as a broad generalization) 'the best use of resources will be made by small farms where there is an abundant supply of labour, and where the soil and climate are suitable for intensive production, particularly of livestock products. Large estates may have the advantage if labour is scarce, or if the soil and climate are best suited to extensive arable cultivation.'[2] This is no reason, however, for not introducing machinery for special purposes—e.g. for clearing hitherto uncultivated land, or for harvesting when there is a temporary local labour shortage, or—in the long-run—if the present surplus of rural labour should be drawn off by industrialization. In any case to raise the average size of farms by state action would outrage the sense of justice, whilst it is extremely doubtful whether either collective farming or country-wide co-operation could be implanted by democratic methods (except in the very long-run). The question of what factors determine the optimum size of farms in regions such as India and Pakistan is discussed further below, in connection with land tenures.

If wholesale mechanization would not provide an acceptable solution of the agricultural problem, but the policy is to increase output per acre, it should not be forgotten that (as already pointed out) success in this direction would itself lead to some increase in efficiency and output per cultivator. The disturbing fact remains that policies with the latter objective in view were pursued even under British Rule, and have been continued more rigorously since Independence, without, however, results commensurate with the efforts made.

The explanation of this disappointing fact involves non-economic as well as economic considerations. It is, indeed, the divorce of a substantial proportion of the agricultural classes from close dependence upon price and other economic incentives and mechanisms—together with the severe pressure of population upon the land—that accounts for the most unsatisfactory rate of progress, if, indeed, it can be said that the poorest classes have progressed at all.

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[1] See Anne Martin, *Economics of Agriculture*, 1958.

[2] Anne Martin, *Economics and Agriculture*, 1958, p. 161.

In the past the distribution of land, the terms upon which land has been held, the level of rents (and of land revenue), the crops grown and methods of cultivation, and even the wages of agricultural labourers (and the methods of their employment) have all depended more upon tradition and custom, and the traditional relations between the various classes concerned with agriculture, than upon economic factors. The increasing population pressure has not only affected the size and compactness of farms adversely, by leading to subdivision amongst heirs and fragmentation of farms into scattered plots (with the object of giving each heir a fair share of fertile land), but has re-enforced the traditional prestige attached to land-holding, and aggravated the difficulty of securing other means of livelihood. Hence there has been no free 'market' in land,[1] in the sense that competitive sales or leases led to land going to those who could make best use of it. Moreover, governmental intervention exemplified by the fixing of maximum rents (or limitation of rises in rent), and a progressive reduction in rates of land revenue (until it became a negligible burden as compared with rent) before and after Independence, inspired by the obvious need to prevent gross exploitation of the peasants, in some respects tended to conserve land in the hands of the inefficient. Some measures, such as tenancy legislation, by providing security of tenure and compensation for improvements, did increase incentives to better farming, whilst others prohibited further subdivision of holdings and encouraged and organized the voluntary exchange of scattered plots to form consolidated farms.

Incidentally, it may be noted that land reformers have condemned crop-sharing—whereby the actual cultivator has to hand over a fixed proportion of the crop to his landlord—to be replaced by leaseholding. This is because if the crop-sharer is to maximize his profits, he must 'carry his production only to the point where the marginal return is *double* the marginal cost'.[2] Nevertheless, the system does transfer part of the risk to the landlords. On the whole, however, the bad results of the system seem in practice to have outweighed its potential advantages.

Legal rates of rent were reduced below the level that would have prevailed in the absence of regulation, but the desire to hold land (in the absence of other employment) could not prevent illegal cesses and dues being levied. The position of the cultivating families was so deplorable that they were willing to secure land even at rents which did not enable them to procure any net return on cultivation above costs, including the cost of labour, and even so family labour was priced, in some cases, below that of wage-labourers. But family life, on the land, was preserved (for those who could get land). In the meantime the number of landless labourers mounted, and even if their wage-rates were above the rates of earning of some family cultivators, their earnings per annum were often less, as wage employment was spread over an unduly large number of labourers.

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[1] See Walter C. Neale, 'The Market in Theory and History'; i.e. Chapter XVIII of *Trade and Market in the Early Empires*, Ed. Karl Polanyi (and others), 1957 (The Free Press, Illinois, USA).

[2] Anne Martin: *Economics and Agriculture*, 1958, p. 158.

Under such conditions land utilization showed no improvement. The small cultivators stuck to their customary food-crops, designed more for self-subsistence than for sale. They could not afford to take risks or to experiment. For them even to use artificial manures made available at subsidized prices by the Government was a risk. They did not fully understand how to use artificial manure. If they used an amount suitable for a good monsoon, but the latter failed (or was short), the crop was injured rather than improved.

It must also not be overlooked that the customary crops provide a seriously deficit diet, especially in protein. It is quite essential that land utilization should be planned in relation to dietetic improvement. So long as this is not done the largely self-sufficing families will subsist on diets short of vitamins and still more of protein—and this accounts for the prevalence of 'kwashiorkor' (a disease attributable to protein deficiency) which, when it does not cause death, accounts for much of the apathy and inertia which prevent many peasants from making the most of even the little that they have. Religious scruples and traditional inhibitions also prevent dietetic improvement and full use of existing natural resources (such as animal flesh and fish). Unfortunately, it is also a fact that improved diets are also more expensive.

It was the deterioration of rural conditions and opportunities after about 1921 when the rate of population growth began to increase rapidly, that called attention to the defects in the land system which failed to provide incentives for better cultivation. This led to a widespread agitation for land reform legislation, which began to be put into force after Independence, on a State (Provincial) basis. There followed the expropriation (with compensation) of large landowners (except from 'self-cultivated' land—an expression often interpreted in a harmfully broad sense), and the strengthening and extension to the whole economy of tenancy legislation that had been introduced under British Rule. 'Ceilings' on the permitted maximum size of holdings are gradually being introduced and enforced. This legislation has varied greatly in different States and Provinces, whilst delays and deficiencies (especially in implementation) have prevented the full attainment of some of the objectives of the laws.[1]

The land reforms have been severely criticized because, so far, it is the more prosperous peasants—rather than the poorest, and the landless—who have benefited. Nevertheless, they have in combination with the many other policies pursued under the plans to assist agriculture, tended to stimulate an increase in total output, which after all is the first objective of planning. In so far as success is achieved in this direction, an increase in the marketable surplus is also stimulated, and the need for imports reduced, whilst it becomes more possible—through direct and indirect taxation—to secure an addition to public revenue from agriculture.

It is, however, clear that the land reforms and other policies pursued under planning have not yet penetrated to the roots of the problem. Un- and under-employment tend to increase, rather than the reverse, the position of the landless labourers and of those with minute plots of land has hardly been affected, whilst the co-operation and village aid programmes have not yet achieved the hoped-for results.

It cannot be said that the peasants, as a whole, have become either alive to the potentialities of 'self-help' or enthusiastic about planning. One very great non-economic problem is that the continuance of class and caste prejudices and sentiments—on the part of the poorest, as well as the social leaders—still prevents change and continues to sap the confidence and enterprise of the underdogs. Despite loss of formerly leased land, of the ceilings on farms, and of efforts to promote democratic village government and planning, power as a rule remains in the hands of the higher-class and prosperous district and village 'baralog', who secure leadership on the village and official committees, and other bodies, controlling rural development.

Not too much should be expected from land reform, which can do no more than remove structural agrarian defects and provide more incentives for the cultivators. Social relationships need other measures. Moreover, agreement has not yet been reached as to what size of farms should be promoted in order to secure the best results under Indian or Pakistani conditions. The factors to be taken into consideration are the dependence of a majority of the population upon land (and the existence of rural landlessness), the present unequal distribution of land (despite the land reforms), the urgent need to step-up yields, and the preference for family farming and maintenance of the traditional way of life. The best solution seems to be to aim at an increase (by reducing ceilings on the one hand, and in some cases consolidating tiny holdings) in family holdings (with security of tenure and full compensation for improvements) of a size (varying in relation to local physical conditions and crops) to provide a living at prevailing standards for an average family (4–5 persons). This should tend to lessen the inequality of land distribution, and provide the largest yields per acre, and to maintain the traditional way of life. As yields per acre are increased, it will also provide for a future increase in the family's standard of life. To attempt to redistribute the land amongst all who would like to have farms, would result in the distribution of poverty to all. The landless must be assisted by other means.

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[1] On the Indian reforms see, for instance, the *Journal of Local Administration Overseas*, Vol. I, No. 2 (April 1962): 'Land Reform in India' by Vera Anstey. On the Pakistan reforms see the Second Five-Year Plan, and the annual Economic Surveys by the economic adviser to the Pakistan Government. It may be noted that in East Pakistan the reforms resembled those in (West) Bengal; in West Pakistan the ceiling on land holdings is as high as 500 acres.

This somewhat lengthy discursion into description and recent history is intended to illustrate the problems that arise when an important sector of the economy is to a great extent dependent upon motives and mechanisms that are largely non-economic. Under such circumstance purely economic measures can only work slowly and unsurely. Social measures—in particular education and training, dietetic reforms, and the removal of class exploitation of the poorest, who at present do not dare to assert existing rights, much less to demand more. All this is recognized by Indian and Pakistani planners. The plans contain measures specifically designed to overcome a number of non-economic problems, although as yet with limited success.

Nevertheless, something can be done even by purely economic measures—for instance, to encourage an increase in, and the better marketing of produce surplus to family consumption needs, by modifications in the system of taxation, and by relating reforms in land utilization to dietetic needs—provided it is borne in mind that the policies adopted must take full account of social factors, until longer-term social reforms facilitate the adoption of policies which have proved effective in advanced countries. Developments in planned directions—such as improvements in fisheries, the extended use of artificial manures, increased consumption of milk and dairy products (including dried milk) and the better breeding of domestic animals —can well be treated as 'infant industries', for which a case for temporary subsidization can well be made out. It may also be suggested that where future extensions to the existing land legislation—such as the imposition of more effective 'ceilings'—make additional land available for redistribution to those with unduly small holdings —conditions might be laid down for the recipients, such as that they should join co-operative credit societies. This is because it is impossible to cultivate properly without an adequate supply of capital.[1] It is not intended to suggest that policies of this sort have been overlooked in the plans, but merely that vast expenditure upon measures whose success depends primarily upon the free working of the price and other economic mechanisms, may involve a great waste of resources, unless accompanied by reforms in the social sphere.

E. CONCLUSIONS

The foregoing pages have attempted to introduce Indian and Pakistani students to the subject matter and methods of economics, presented (mainly) against the background of the existing economic environment in India and Pakistan.

The object has been to effect this introduction by means of a fairly wide selection of interrelated topics, rather than by attempting *either* to provide a bird's-eye view of the whole scope of economics, *or* to deal exhaustively with any one aspect. Hence many important aspects even of 'elementary' economics have been completely omitted, whilst others have received extremely cursory treatment. To remedy the latter defect references for further reading have been given at the end of each chapter.

The idea has been to stimulate interest in the subject of economics, to illustrate how even elementary principles can throw some light upon the many economic problems facing countries such as India and Pakistan, and to show how economic methods can help in the analysis of these problems. At the same time it has been attempted to allow fully for the special economic characteristics of India and Pakistan (which sometimes necessitate wide departure from policy decisions commonly adopted by advanced countries) in order to exemplify the necessity of giving due weight to local conditions.

It is also hoped that it has been shown that theoretical economic analysis, the study of economic mechanisms, and the application of economic principles to actual situations, are all ultimately based upon a number of propositions and principles, which although basically simple are capable of complex elaboration, and have widespread application in undeveloped as well as in advanced economies—always provided that due allowance is made for the particular circumstances. These principles deal with demand, supply and price relationships, the contrasted results of competition and monopoly, the effects of specialization and comparative costs, the role of profits, saving and investment, and throw light upon the operation and results of economic institutions, such as money, banks, joint stock companies, and nationalized industries. The importance of measurement in assessing economic proportions and trends has also been stressed and illustrated. Finally, the last two chapters have attempted to reveal the intimate relationships between the various departments and aspects of economic life, and to elicit certain principles affecting the efficiency of planning policies.

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[1] See Anne Martin. *Economics and Agriculture*, 1958, p. 142.

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Because of its relevance for public policy and the actions of Government, the theory of income and employment appears to many students to be the most interesting branch of economics. This book is an introduction to that theory. It begins by giving the essential definitions of National Income and Product, and sets out the analysis of income-determination in plain words without diagrams or algebra: this part of the book could be offered to complete beginners, though the remainder is intended for second-year students. Further chapters examine the relationship between output and employment; the factors determining consumption and investment; the connection between National Income and foreign trade, and the means by which the government can influence the level of economic activity.

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